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SERVICE BULLETIN

CONTENTS [redacted]

> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT xxx THE TIME HAS COME FOR A CHANGE AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY xxxx TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES, WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER
>
> Theodore Roosevelt

Vol. XXII No. 1 Washington, D. C. January 10, 1938

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U. S. Department of Agriculture

WHITHER BOUND - OR IF WINTER COMES

By L. L. Bishop, Texas Forests

For more than--no need to record how many--years, I have watched from the inside the steady progress, and, until recently, the rather slowly changing administrative pattern of the Forest Service. I knew the Forest Service when a few inspired men in the Old Atlantic Building in Washington knew--at least, gave--all the answers. Forest Officers received their badges and their meagre stipends direct from the seat of Government, Washington.

Early in its history the Forest Service espoused and embarked upon a policy of decentralization. I do not remember that there was ever much authority passed on by Washington to the Supervisors. The first big step -- at the time, a rather startling step -- was the establishing of the District offices. This brought into places of authority the best of the field personnel, men who knew intimately the problems and the opportunities that confronted the Forest Service out in the wide open places. Decisions affecting the work in the field were made quicker and by men well qualified to make them.

Decentralization is a fine idea and as applied to the Forest Service has, I believe, done much to keep the outfit vital, virile, and potent. However, like cutting off a dog's tail, it can be carried too far. Today there seems to be a definite trend in the direction of making little Supervisors (and in instances up to middle-sized Supervisors) of the Rangers. A recent newspaper story referred to the "Staff" of one of my Rangers. I care to believe that I have the only Forest Service staff in Texas. My four Rangers--good men and true--have assistants, helpers, co-workers, or what you will, but not "staffs." If we keep shoving responsibility and authority to the Rangers, I am willing to agree that they will need staffs, several clerks, large office quarters, and more comfortable swivel chairs. Personally, I am still old-fashioned enough (if old-fashioned it be) to believe that the Ranger should be a field man. I am unwilling to agree that more than half of his time should be spent in preparing elaborate plans of work, in making reports on how well such plans didn't work, in checking Form 7's, accident reports and training reports, and in keeping property records, project account records, cost records, records and reports ad infinitum. I would much rather the Ranger be afield coordinating the many activities of his district, learning to know an many as possible of his resident population well enough to call them by their first names, becoming acquainted with the many social opportunities that confront the Service, and thinking up ways better to serve more people.

It is my belief that the Supervisor should be provided with a Management Staff Assistant, a Fire Expert, a Law Enforcement Officer, an Engineering Staff Assistant, or such other special assistants as the character and volume of the work indicate, and that management plans, important engineering projects, CCC administration, and comparable responsibilities should head up in the Supervisor's office. Can we expect each Ranger to be a fire specialist, a management expert, a proficient engineer, a planting expert, a recreational planner, an agriculturist, a researcher, and an administrator capable of satisfactorily directing the work of several hundred CCC enrollees, ERA and other employed personnel, and other projects of magnitude?

I am concerned as to the tendency of building up large Ranger district organizations for one thing because of the very great difficulty that will unquestionably be encountered when the pinch comes -- and I for one believe that it is bound to come; it may be closer at hand than any of us suspect. It is easy to build up, but expensive habits are difficult to break and are broken only with attendant pain and suffering.

Oh, well, it's fun while it lasts! And it may last. "You could fool me."

DIRECTOR ZON REMINISCES

The following letter was written by Raphael Zon, Director of the Lake States Forest Experiment Station, to Secretary Wallace in reply to a personal invitation from him to participate in the celebration of the 75th anniversary of the founding of the Department.

Dear Mr. Secretary:

I deeply appreciate your invitation to participate in the celebration of the 75th anniversary of the Association of Land Grant Colleges and Universities and the Department of Agriculture. It is a great temptation to meet old comrades in arms and live through in memory the battles lost and won in the early struggle for the recognition of agriculture as a basic factor in the economic and social life of our country. Yet, the distance and the time make such a trip impracticable, and I must regretfully deprive myself of the pleasure of such a unique reunion.

As to your request for some of my personal experiences during the 36 years of my association with the Department of Agriculture, I hardly know where to begin. It has been one unending succession of deep spiritual and intellectual adventures of all-absorbing human interest.

The link which connected me with agriculture was forest lands. The forests, although covering even today more than one quarter of the total land area of the country, were looked upon by the early agriculturists as a handicap instead of an aid to agricultural development, and forestry as a stepchild of agriculture. The change which has taken place in the agricultural thought regarding forestry within the last 20 years and the prominence which is being given forestry today is a great step forward in agricultural thinking toward a balanced land use.

To me, a child of city "sidewalks" in old Russia, and possibly just because of that, forestry had a great allurement. The struggle to save the remaining timbered public domain and other natural resources of the West from private despoliation--a principal activity of the Forest Service in the days of Theodore Roosevelt and Gifford Pinchot--reflected my own political and social philosophy, which was rooted in the teachings of the advanced thinkers of the late 19th and early 20th centuries.

Within the Forest Service of the Department, I found the fulfillment of my aspirations for useful public service, and during my entire career have never had occasion to regret it. To the credit of the Department, I must say that in spite of my ideas, which in those early days were not in conformity with the prevailing social and economic ideology, I have never been suppressed in expressing them (although they were seldom accepted), and I have enjoyed intimate friendship with every Chief Forester practically since the beginning of forest activities of the Department, from Dr. B. E. Fernow through Pinchot, Graves, Greeley and Stuart to Silcox.

The "red letter" days which have burned most vividly into my consciousness are: the transfer in 1905 of the forest reserves from the Department of Interior to the Department of Agriculture, the Pinchot-Ballinger fight, the creation of a forest research unit within the Forest Service (with which I was connected from the very beginning), and finally, the recognition of the forests, not merely as a source of raw materials, but as an important factor in improving the living conditions of the people within or adjoining National Forests.

My career in the Forest Service has convinced me more than ever of the value of "dreamers" and advanced thinkers along social lines. Branded often by my colleagues as a dreamer and impractical, I have lived to see some of those dreams become realities, while many of the so-called practical measures proved unsound and unworkable.

I have lived to see the day when so-called "radical" measures are being boldly proclaimed without apology by the Secretary of Agriculture, by the Chief Forester and other administrative leaders as sound policies, nay, essential policies for the preservation of democracy itself. I have in mind the advocacy of the cooperative movement and of regulation of cuttings on privately-owned forest land, sympathetic consideration of the plight of the tenant, enlargement of opportunities for the settler and worker on publicly-owned forests, and similar measures which in the old days could only be whispered within the circle of intimate friends.

And finally, I have come to look upon the Department of Agriculture as the most socially useful unit of our Government, where honest thinking, fearless search for truth, and a desire to be helpful to those who need help most, are encouraged. The blessings of the Department's labor flow not only to the people of our own country but also to the people of the entire world.

I am proud to be a humble worker within the ranks of the Department of Agriculture.

Faithfully yours,

Raphael Zon

Director.

A "FORESTERS' FOREST" ESTABLISHED

By George A. Cromie, formerly City Forester,
New Haven, Connecticut

Forestry societies and associations from time to time have discussed the practicability of securing and establishing a "Foresters' Forest" in order to allow technical foresters in Governmental and educational work, and others interested, to secure personal ownership of woodlands and so become familiar with the problems involved; also to prove that private and corporate forestry under favorable circumstances is practical.

The possibilities for such a forest have been created in the recent purchase of a very unusual 291-acre woodland tract at Enfield, Connecticut, an area of level, sandy loam land well-stocked with white and some scattered red pine, and hardwoods of several age classes. The main feature of the forest is its famous 66 year old, 100-acre "Shaker Pines" plantation made by the Shaker Colony, a religious, communal settlement which at the early date of 1871 astounded nearby farmers in the Connecticut Valley tobacco country by devoting this tract of their rather high quality soil to forest purposes. Observations, growth studies, and other data on the Shaker Pines have for many years been an inspiration to forest school classes, water companies, other corporations, and to private individuals of the Eastern United States wishing to establish forest plantations of their own.

This valuable tract seemed doomed to clear cutting due to some financial difficulties of a recent owner; in fact, a half million board feet of pine on 20 acres was so lumbered early last spring; but after a detailed cruise, mapping and timber estimate under the auspices of the State Forester of Connecticut, and through his leadership and that of several members of the Connecticut Forestry Association, a so-named "Shaker Pines Forestry Corporation" was formed to purchase the area and conserve its woodlands under forestry principles. Revenue for operating expenses, taxes, and to allow a moderate annual profit is to be provided by selling stumpage out of the overstory pine and hardwoods cuttings, in amount to the annual growth. Much of the supervision, fire protection, and technical management can be secured or will be aided by the staffs of the State Forestry Department, the Yale Forest School, and the Connecticut Forestry Association.

This forestry project is ideally situated, being accessible at all seasons both for interior operation and for visitation, and it also contains 1,000 feet of frontage for possible recreational use on Shaker Pines Lake. The marvelous seeding-in over the whole area of young pines and the better species of hardwoods, is a great factor in the assurance of future timber crops. The cruise shows thrifty, fast-growing stands of merchantable timber, at present amounting to 993,000 feet B.M. of pine and 315,221 feet B.M. of other species. The current annual growth is estimated at 140,000 feet B.M.

The financial set-up calls for $14,500 in stock, in shares of $100 each (the purchase price being $14,000). Subscriptions for $9,700 of the issue have already been received. Information on this project may be obtained by writing to the Shaker Pines Forestry Corporation, c/o Edgar F. Heermance, Secretary Connecticut Forest and Park Association, 215 Church Street, New Haven, Connecticut.

GRAPHIC HISTORY OF FIRST REGION 8 ACQUISITION CASE COMPLETED UNDER NEW PROCEDURE

By E. A. Sherman

The Service Bulletin of November 30, 1937, carried a chart showing the life history of the first acquisition case to be completed and paid for under the new procedure designed to expedite our land purchase work. That case involved 40 acres on the Mainstee National Forest, Michigan, in Region 9. A total of 84 days elapsed between approval by the National Forest Reservation Commission and final payment, 37 days chargeable to the Forest Service and 47 days to other agencies.

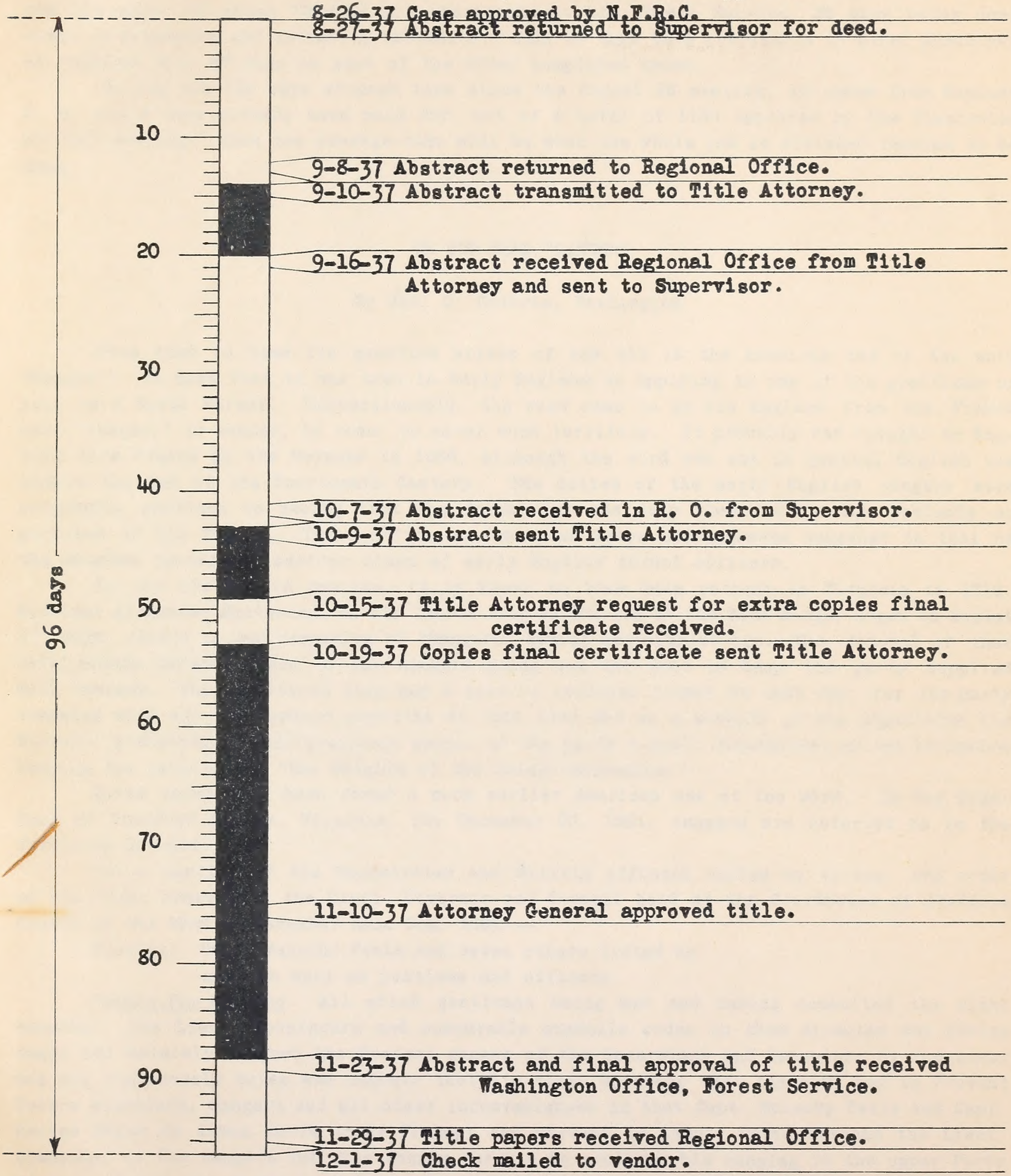
The first Region 8 case was paid for December 1, 1937. It was for 160 acres of land in the Black Warrior, Alabama. The total elapsed time between approval by the Commission and payment was 97 days, 50 chargeable to the Forest Service, as compared with 37 days in the Region 9 case, and 47 days chargeable to other agencies, exactly the same length of time such agencies required in handling the Region 9 case.

The accomplishments of the two Regions are quite comparable. The greater length of time consumed by the Forest Service is due in part to poor mail service, but chiefly to the fact that title defects in the Black Warrior case necessitated its return from the Title Attorney to the field for curative material, resulting in 23 days delay. Apparently, but for this the lapsed time would have been exactly the same as in the Region 9 case. In both cases action by the Title Attorney's office was commendably prompt. The chronology of the Black Warrior example is shown in detail on the graph following this page.

GRAPHIC HISTORY OF FIRST REGION 8 CASE UNDER NEW PROCEDURE

L-Purchase Black Warrior - Knox, W. L. N. #376

Case abstracted prior to N.F.R.C. approval.



8-26-37 Case approved by N.F.R.C.

8-27-37 Abstract returned to Supervisor for deed.

9-8-37 Abstract returned to Regional Office.

9-10-37 Abstract transmitted to Title Attorney.

9-16-37 Abstract received Regional Office from Title Attorney and sent to Supervisor.

10-7-37 Abstract received in R. O. from Supervisor.

10-9-37 Abstract sent Title Attorney.

10-15-37 Title Attorney request for extra copies final certificate received.

10-19-37 Copies final certificate sent Title Attorney.

11-10-37 Attorney General approved title.

11-23-37 Abstract and final approval of title received Washington Office, Forest Service.

11-29-37 Title papers received Regional Office.

12-1-37 Check mailed to vendor.

☐ Total days case in hands of Forest Service - 49

■ Total days case in hands of other agencies - 47

Meanwhile Region 9 has made final payment on a second August 26, 1937, purchase. The land in this case was in the Gasconade Purchase Unit in Missouri. The total lapsed time was 111 days, of which 72 days are chargeable to the Forest Service, 36 days being consumed in preparing and reviewing abstracts. Only 39 days were chargeable to other agencies, as compared with 47 days in each of the other completed cases.

During the 126 days elapsed time since the August 26 meeting, 10 cases from Regions 7, 8, and 9 have already been paid for, out of a total of 1130 approved by the Commission at that meeting. What the average time will be when the whole job is finished remains to be seen.

ON OUR WORD "RANGER"

By Jno. D. Guthrie, Washington

From time to time the question arises of how old is the American use of the word "Ranger." We know that it was used in early England as applying to one of the positions or jobs on a Royal Forest. Unquestionably, the word came to us via England from the French word "ranger," to wander, to roam, to cover much territory. It probably was brought to England from France by the Normans in 1066, although the word was not in general English use before the end of the Fourteenth Century. The duties of the early English rangers were originally confined to seeing that the forest law was duly observed in the cutlands or purlieus of the forest. Their office or functions later corresponded somewhat to that of the mounted foresters, another class of early English forest officers.

As for its use in America, it is known to have been current in Virginia in 1716. Governor Alexander Spotswood, on his famous trip to the top of the Blue Ridge, begun on August 17, 1716, refers to two companies of "Rangers" having accompanied him. His Journal of that trip refers several times to the Rangers going out for deer to keep the party supplied with venison. This Spotswood trip was a sort of official junket of that day, for the party traveled with all the comfort possible at that time and as a memento of the expedition the Governor presented to each prominent member of the party a small diamond-set golden horseshoe bearing the inscription "The Knights of the Golden Horseshoe."

Quite recently I have found a much earlier American use of the word. In the Order Book of Stafford County, Virginia, for December 22, 1691, rangers are referred to in the following extract:

"At a meeting of the Magistrates and Militia officers called by virtue and order of the Right honourable the Lieut. Governor and Council held at the Courthouse of Stafford County on the 22nd of December Anno Dom. 1691 --

Present: Capt. Malachy Peale and seven others listed by
name as well as justices and officers.

"Order for Ranging. All which gentlemen being met and having consulted the right honoble. the Lieut. Governours and honourable councils order to them directed and having duely and Maturely weighed the Present danger of the Incursions and Invasions by the enemy doe all unanimously agree and concurr that its their opinions that the best way to Prevent future mischiefs, dangers and all other inconveniences is that Capt. Malachy Peale and Capt. George Mason do issue forth their Precept and warrant to Lieut. David Strahan the Lieut. Commander of the rangers for this County for him to continue his ranging in the upper Parts of this county and Freshes of Potomack until further orders from the right honourable and honourable Council of State to the Contrary."

The word is of record as being in use in Georgia by 1742 and probably was current in other Southern States. "Texas Rangers" came into use much later and still later (around 1892?) our adoption of it as applying to a forest reserve employee or official. Incidentally does anyone know who was responsible for its adoption and first use in our present-day sense? So far as now known, there were no federal forest rangers before 1891 when the Forest Reserves legislation was passed.

YE EDITOR DISCOVERS

An arrangement which is most satisfactory to the Forest Service has been effected with respect to fishing rights in certain natural lakes within the Grand Mesa National Forest, Colorado, which are also used for storing water for irrigation. A few years ago a resort company which had acquired the irrigation rights in these bodies of water undertook to exclude the public from fishing therein. It was urged that in addition to having rights for irrigation purposes the company also had obtained a fishing license from the State of Colorado which practically gave it a monopoly in the matter of fishing in these waters. A suit was brought by the United States asking that the company be enjoined from interfering with the public in fishing in or boating on the waters of these lakes. Recently a compromise has been effected with the company whereby it relinquishes all its claim to fishing in or boating on the lakes which are located on lands of the United States, and for a consideration of $5,000 paid by the State of Colorado grants to the public the right to go on the company's lands for fishing and has also surrendered its fishing license held from the State of Colorado. In other words, the public now is free insofar as the company is concerned to go on any of these lakes, whether located on lands of the United States or lands owned by the company, for the purpose of fishing.

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The following stations will broadcast the National Farm and Home Hour regularly beginning January 3: KGO, San Francisco; KECA, Los Angeles; KTAR, Phoenix; KFBK, Sacramento; KTSM, El Paso; KJR, Seattle; KGA, Spokane; KWG, Stockton; KOB, Albuquerque; KERN, Bakersfield; KEX, Portland; KFSD, San Diego; KMJ, Fresno; KTMS, Santa Barbara; and KMED, Medford. Other west coast stations which have been carrying the National Farm and Home Hour daily except Sunday in recent months include KLO, Ogden; KIDO, Boise; KRGV, Weslaco; KRIS, Corpus Christi; KGIR, Butte; and KGHL, Billings.

The addition of these stations gives the National Farm and Home Hour its peak number of outlets and represents an increase of 76 stations carrying the program since the first broadcast was aired on October 2, 1928.

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Issuance by the General Land Office of the first term lease under the provisions of Section 15 of the Taylor Grazing Act was recently approved by Secretary Ickes, according to a Department of the Interior press release. The lease, issued to J. Samuel Freeman, Jr., of Dillon, Montana, became effective on December 21 and authorizes utilization of 1,002.28 acres of public domain, for grazing purposes during the next five years.

"Issuance of the term lease," according to the press release, "constitutes a significant milestone in the task of the General Land Office in administering the 55,000,000 acres of public domain which are divided into such small parcels and so scattered as to location as to preclude their inclusion in the general public range system. Grazing operations on these sections of the public lands have been controlled through issuance of approximately 4,000 temporary 1-year licenses. Plans of the Land Office contemplate replacement of these temporary leases with term permits, upon the expiration of the temporary period, and field work of investigating each of the tracts involved in the temporary licensing set-up is now under way."

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In cooperation with the Arizona Game & Fish Commission, the Kaibab National Forest deer hunt this year was conducted from October 27 to November 15. Each hunter was allowed one deer, either buck or doe. The total number of hunters was 1,919, Arizona contributing 1,635, California 233, and Oklahoma 19. In all, 14 States were represented, Tennessee being the most remote. One thousand four hundred and fifty-six deer were taken, of which 52 percent were bucks and 48 percent does. The heaviest buck weighed 247 pounds.

The Supervisor reports that the number of deer on the Kaibab has now been reduced to the point where unlimited killing is no longer desirable. However, from 1,000 to 1,200 may possibly be spared next year.

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Under a new Commonwealth-subsidized juvenile employment plan, Queensland, Australia, has had 118 young men between 16 and 21 at work on forest reserves during the past year. They work 6 men per "camp" in charge of an overseer. In addition to these youths, 1440 men have been used during the past fiscal year on forestry work. This is a part of Queensland's efforts to increase and improve its state forests, whose area was increased by 149,819 acres during the past year. Queensland's totals are sizable: State forests - 2,790,196 acres; timber reserves - 3,384,196; national parks - 416,911 acres.

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Secretary Wallace has approved and signed a Section 4, Clarke-McNary Law, cooperative agreement with the State of Illinois for the "procurement, production, and distribution of forest-tree seeds and planting stock." This makes 39 States and 2 Territories which cooperate under Section 4.

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An order was recently issued by Secretary Ickes and Commissioner of Indian Affairs John Collier designating as roadless areas 12 tracts of Indian lands, and as wild areas, four tracts, according to a Department of the Interior press release. These areas total about five million acres, the largest area being the 1,590,000-acre Rainbow Bridge region on the Navajo Reservation, in Arizona and Utah.

"The new order," according to the press release, "is a fulfillment of one of the promises implicit in the Indian Reorganization Act of 1934, the promise to permit the Indian to follow his own way of life."

"The Indian Office order indicates that establishment of such 'quiet zones' may constitute a boon to whites as well as to Indians. Undoubtedly, these retreats will be sought by many persons in search of unspoiled wilderness. It is one of the advantages of the sanctuaries that Indians will be enabled to add substantially to their incomes by acting as guides for outsiders."

ROADS AND EROSION CONTROL

Activity #38 covers Fire Prevention and a great deal of time and money is devoted to this activity annually on the National Forests. In controlling erosion are we giving the time and thought we should to "Erosion Prevention" in comparison to "Fire Prevention"? Stream bottoms have been fenced, dams built, grazing controlled and other control measures have all aided in controlling and healing eroded areas.

But, roads and trails have been constructed up the canyons and through the areas treated without sufficient thought being given to the resulting erosion. To drain a road properly it is necessary to construct drainage ditches which concentrate the water, the idea being to get rid of this water as quickly as possible. We must drain the roads to hold them but we do not have to turn this concentrated flow of water loose at culverts and dips to erode the hillsides and slopes below the road.

This damage can be avoided by more drainage structures, rock percolators, wider flat bottom drainage ditches, more wing ditches, longer and flatter dips and many other simple ways of spreading this water. After a road project has been completed and all drainage structures and ditches installed, why not as a part of the road project follow up with an artificial revegetation program? Is this not just as much a part of road building as actual construction or road side cleanup?

In controlling the disposition of this water we are not only practicing "Erosion Prevention" but we are conserving the water. As a suggestion to Forest Officers, why not give "Erosion Prevention" the same consideration we do "Fire Prevention", as without soil and underground storage of water there will eventually be no trees, and with no trees Activity #38 will be passe.

Conservation is not a new idea but those of us who have lived the past twenty-five or thirty years in the Southwest should be able to appreciate the importance of this idea and not consider it a fad or a passing fancy of those higher up. If you have an idea along this line, don't let your modesty stifle it but submit a memorandum report to the Supervisor and each suggestion will receive due consideration. (Lincoln Bulletin)

VIRGIN PORT ORFORD CEDAR TRACT RESERVED AS "NATURAL AREA"

Eleven hundred acres of virgin Port Orford Cedar timber have been proclaimed a "Natural Area" by order of Chief Silcox. This area lies within the Port Orford Cedar Experimental Forest on the Siskiyou National Forest in Oregon. The tract contains some splendid groups of this valuable species and is so located that it will be safe from inroads of fire and logging.

At the present rate of cutting, virgin tracts of Port Orford Cedar will soon be a rarity except on federal lands within the National Forests. The Forest Survey recently completed by the Pacific Northwest Forest Experiment Station indicates that there is only about 1,140 million board feet of this cedar in existence, all in southwestern Oregon except for a small amount in northern California. Sixty-nine percent of this timber is in private ownership, 15 percent on the Oregon and California Railway revested grant lands managed by the Department of the Interior, and 16 percent on the National Forests. The annual cut in recent years averages about 48 million board feet, nearly all coming from private lands and from the O. & C. revested lands. - From R. 6 Press Release.

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>
> Theodore Roosevelt

Vol. XXII No. 2 Washington, D. C. January 24, 1938

THE CHIEF ANSWERS CERTAIN CRITICISMS

In a letter to Mr. Ovid Butler of the American Forestry Association, dated January 12, Mr. Silcox comments, in part, as follows to recent criticisms by Mr. John B. Woods, Forester of the National Lumber Manufacturers Association, and Mr. S. J. Hall, President of Forest Managers, Inc., Jacksonville, Florida. Excerpts from all three letters, we understand, will appear in the February issue of "American Forests".

"Constructive criticism and discussion are, as you say in your letter of January 5, healthy things, and vital to true democracy. At your request, therefore, I am glad to add the following comments to those of Messrs. Woods and Hall.

"The major premises on which the thesis of my annual report is based are that, _for the continental United States as a whole_: -

"1. The best 4/5 of our commercial forest land, the best 3/5 of our commercial sawtimber, and some 9/10 of all potential forest growth is in private ownership. Of all forest products, 98 percent is cut from privately owned forest lands. Though the difference is not now so great, for 1925 to 1929, inclusive, forest drain exceeded forest growth by about 5 to 1 in sawtimber sizes but only 2 to 1 in all sizes.

"2. With minor exceptions, neither in this country nor elsewhere - so far as I can find - has private initiative succeeded, of itself, in establishing sustained yield forest management on privately owned forest lands generally. Instead, public regulation has been necessary.

"My last premise is based on conditions and facts that, widely known and accepted, have been supplemented by personal observations in every major forest region in the United States and some 14 principal timber producing countries of Europe. The first premise is based on Copeland Report data.

"Frankly, I expected Mr. Woods' reactions. Despite what he says, however, the Copeland Report data has never yet been discredited. It is, of course, subject to modification in some particulars. Excess of drain over growth, particularly in the sawtimber sizes, decreased sharply right after 1929, but in the past few years it has been going up again. The general picture painted by data used in my report is still essentially correct, and that data is still the most complete and reliable with respect to our forest situation and the forest problem, nationally. The Forest Survey has made remarkable progress with the funds at its disposal, it is true, but it must be remembered that for the country as a whole: -

"(a) Interpretation - necessary as a basis for formulating guiding principles and policies for forest-land use and management on national or regional bases or for specific localities - is dependent on collection of field data, and on computation and analysis of it.

"(b) And on an acreage basis, field work is only about 50 percent completed; compilations only about 25 percent completed.

"The Forest Survey has, of course, concentrated in large measure within the South and the Pacific Northwest, and within these regions greater progress has been made. In the Pacific Northwest, for example, field work on growth is 80 percent completed, on volume and drain 100 percent completed, on computation about 75 percent completed, and analyses and interpretations are well under way. In the South as a whole, field work is 90 percent done, computations about 40 percent completed, with analyses and interpretations also well under way. And for certain local areas within these important timber-producing regions, progress has exceeded even that indicated by these figures.

"Regional Survey data are significant, but there is no more justification for attempting to apply regional data to the country as a whole, or for trying to formulate guiding principles and policies for the nation from it, than there is in applying regional Forest Survey data to lesser and more local areas. Both these practices are indulged in, but both are often fallacious. Before discussing this phase of the situation, however, I want to mention certain other matters in connection with which Mr. Woods so ingeniously expresses himself.

"If fuel wood is excluded it is possible that growth equals that 'cutting' drain for 1930-36 to which Mr. Woods refers. What of it? Why try to draw a pretty picture on such a basis? I'm talking resource management. For that, fuel wood drain and such losses as those from fire, disease, insects, cannot be evaded if growth and depletion are to be balanced. And balance of growth over drain for large areas is by no means the entire answer. Every time an acre is taken out of sustained yield production, it throws added drain on some other acre.

"Congress set up cooperation as a method of helping private owners establish on their lands those forest practices necessary to the public welfare. It should be obvious that Congress would not have taken such action unless public obligations and responsibilities were involved. And it seems perfectly natural for Congress to seek an adequate quid pro quo before cooperative expenditures to private owners are increased. Indeed, were the shoe on the other foot, I believe a larger return than has as yet been called for by Federal and State Governments would have been exacted long ago by forest industries.

"Federal and State cooperation with private owners of forest lands includes, as my current report indicates, much more than research, and fire prevention and suppression. Mr. Woods fails to record it, but for years the Forest Service has earnestly supported requests by the forest industries for additional funds for both these purposes.

"There is no question but that - as my report states - 'with public cooperation more forest lands now receive better fire protection', and that 'applying some basic techniques and practices developed and applied on the National Forests for more than 30 years, more private owners now leave more cut-over lands in a more productive condition.' I recognize these as encouraging signs, but they do not constitute sustained yield forest management, either as practiced on the National Forests or (to quote again from my report) 'here and there [on| farm woodlands, and occasionally [by| industrial owners.' And the fact that dependent communities - such as Bend, and Lakeview, Oregon - are now aggressively searching for legislative and administrative action which will assure sustained yield forest management in order to prolong their existence, is fully as gratifying to me as is the very real interest now shown within the forest industries.

"Forest industries have heretofore advanced the thesis that a 'most serious defect in cooperation' has had to do with taxation of forest lands. Those industries will agree, I think, that this problem is by no means solved, and that efforts should be continued to secure modification of a situation in which private forest owners generally are particularly vulnerable.

"This is not an easy task. Stability of income appeals to County Commissioners, yet they are antagonistic toward reduction of taxes on forest lands generally. Their attitude is very frankly one of taking while the taking is good, on the theory that if they do not take all they can get now, the chances are there will be little or nothing they can get a few years from now. Yet many Commissioners freely admit that if they could be convinced that forest owners and operators are sincere in their efforts to practice sustained yield forest management, the Commissioners would really try to forego relatively high or transitory returns in favor of long-time but stable incomes. This is encouraging. The problem seems to lie most directly between County Commissioners and forest industries, but the Forest Service plans to continue its cooperation.

"Mr. S. J. Hall's letter of November 24 to the editor of the Southern Lumber Journal was inspired by previous correspondence I had with Ben Wand. * * * His letter was, of course, written before my current annual report saw the light of day. * * *

"After implying that my views were based on personal observations, Mr. Hall refers to certain Forest Survey data for the naval stores region as a whole, and confesses, on the basis of it and his own personal observations, that he 'fails to see any very serious state of affairs' in relation to the pine situation in the region referred to. BUT: -

"1. The Survey figures he quotes were for 1934, the situation has changed greatly since then, and more recent Survey figures are available.

"2. Mr. Hall rather obviously fails to consider implications of such things as recent trends in lumber production in the South; the well known housing shortage throughout the country; the world-wide situation with respect to pulp and paper; the fact that forests have public values that may outweigh those they have as producers of cellulose alone; and that as a national policy an economy of scarcity with respect to forests is unsafe.

"3. He apparently fails to consider that the whole is made up of the sum of its various parts, and that a chain is no stronger than its weakest link; that - in other words - it is often fallacious and misleading to apply to lesser or local areas even the current Survey estimates of growth and drain for such an area as that of the southern naval stores territory as a whole, for example.

"In connection with these statements, I have called attention to the fact that in less than 3 short years since 1934 the Survey's 3,000 cord surplus - of computed net growth over computed net drain for the southern naval stores area - has become a computed deficit of 1,900,000 cords. Part of this deficit is due to full projected requirements of new but known pulp mills, and the date when those full requirements are met probably depends on market conditions, it is true. Part of the deficit is, however, due to lumber production that, for yellow pine, (about 95 percent of which comes from the South) has already increased from less than 4½ billion feet B.M. in 1934 to more than 7 billion feet in 1936!

"It may be dangerous, too, to take too provincial a viewpoint. According to available information, Norway, Sweden, Germany, and Japan cannot expand their present pulp production; Finland cannot increase its present output of sulphite pulp; for years to come Russia bids fair to need, at home, all the pulp she herself can produce; there is practically no pulpwood commercially available in South America; and in eastern Canada and the eastern and midwestern United States there is little left beyond that required for existing mills. Does such a situation mean nothing to forests - and forest industries - in the South?

"Most southern pulp mills favor locations readily available to deep sea transportation; plan to get most of their forest products over relatively short hauls. With such a concentration, figures of drain for the naval stores region as a whole cannot possibly apply to the Coastal Plains. Unless local drain is kept in balance with local growth there - unless sustained-yield forest management is practiced locally - exploitation must deplete forest capital stock there.

"A striking illustration of the fallacy of attempting to apply general figures to local situations - and of the human exploitation that follows even local forest exploitation - is evident in South Carolina, on a certain area comprising nearly 2½ million acres on the Piedmont Plateau. There are no pulp mills there, and our current forest balance sheet shows a present surplus (of computed growth over computed drain) of some 148,000 cords. On the basis of these figures, this local area seems, therefore, to be in pretty good shape. But: -

"Within it are two National Forest purchase units known as the Long Cane and the Enoree. The former embraces some 431,000 acres. Under proper management it could have yielded worth-while, continuous returns in forest products, and continuous jobs for heads of many families. Under private ownership the usual exploitation was practiced, and the inevitable aftermaths are now plainly to be seen. Let me describe them to you.

"Some 70 percent of the area is forest land. Most of it has been gutted. About 30 percent, largely in small, isolated patches, will raise home gardens and such crops as cotton. On the area as a whole, there are 3,000 families. Three-quarters of them are tenants, sharecroppers, or squatters, mostly of long standing. Ninety-eight percent of all houses have leaky roofs. Ninety-five percent have no screens. Only one in 10 has a toilet of any kind. Pellagra is widespread. Only 30 percent of the children attend school. Living standards are low, and undernourishment is all too common.

"These people, and the Long Cane area itself, are and for a decade or more must be a burden on State and local political subdivisions, and on taxable property. Long Cane makes up about 17 percent of Unit 3, as the local Forest Survey area is called. Not far away is Enoree, where in varying degrees conditions are comparable. Yet the balance sheet for Unit 3 as a whole is far more favorable than the current one for the State as a whole, or for the naval stores area as a whole.

"This illustrates the fallacy of blindly applying general figures to local areas. It also indicates the need for keeping local drain in balance with local growth - of applying sustained yield forest management, right from the start, in local areas.

"As I stated in my annual report, 'If pulpwood requirements are supplied so far as possible from stands handled under light cuts, with integrated utilization of the timber removed and coordination with the needs of existing timber-using industries, investigations show that planned pulp expansion in the South can be a constructive economic force in bringing closer utilization and improved forest practices.' But my report also calls attention to the fact that, in the South 'forest stocking is below normal, and a part of the current growth must be retained annually if depleted forests are to be built up.'

"Long Cane conditions are grim reminders that trees cannot be considered an end in themselves; that a major aim of forest conservation must be to conserve human resources; that even when the National Forest system functions as far as it can in this respect, it cannot - short of almost complete ownership of forest lands - conserve either our forest or our human resources generally.

"That's a major reason why, in my current annual report and elsewhere, I am emphasizing extension of public cooperation with private owners, and public regulation. I believe cooperation should be available to owners and operators who will deliver an adequate quid pro quo. I also believe regulation is necessary to protect industry as well as the public from the private owner who continues unfair competition through forest exploitation.

"KEEP IT SIMPLE" -- IS THE COST JUSTIFIED?

By T. Krueger, Black Hills

An endless stream of pamphlets, circulars, news letters, magazines, new handbooks, amendments to handbooks, amendments to the amendments, etc., passes over my desk each week. And the same thing happens in some 160 other Supervisors' offices in the country. If I read all this material carefully, I would not have much time for anything else. Consequently, much of this material gets a glance only before it is filed. Once in awhile there is a piece of mail that attracts my special attention. Such a one was the recent poster by the CCC Division. Only three words were used for its message "KEEP IT SIMPLE".

I looked at this poster for awhile, and then it struck my funny bone as I thought about our old and new work plans, our old accounting system and our elaborate new scheme for cost accountants, etc. I well remember our old plan of work. All it consisted of was a card or notebook sheet. On these cards or sheets were listed all the jobs to be done on the Ranger District. Other cards listed 5 minute or short time jobs to be done around the station at odd times. Some Rangers kept the cards by jobs to be done on certain trips, others by dates jobs were to be done, others by location of jobs. Then, before a trip was made the job sheets for that trip were put into the field notebook and checked off as done. The members of the Supervisor's office would check these cards and the diary and pretty much know what was going on. A very simple, easily understood, systematic way of getting work done and "IT WORKED". It also was cheap for the results obtained.

Then, think of our new plans with some seven or more places in which even the simplest of jobs have to be recorded. There is the job foundation presentation, the Form 576 analysis, 26a, 26b, trip plan, administrative trip write-up or map, travel map, handbook of standards, code numbers and generally some home-made work sheets to be sure the thing balances at the end of the month. The cost of all this is tremendous. I find that it takes at least two days per month, or the equivalent of 24 days, or one work month, per year, for the Ranger on an average District, to make and maintain the new plan. Multiplied for some 1,000 Rangers in the Service, this means, 1,000 man months per year, or some $200,000. To this add one day per month for 160 Supervisors. That adds another $25,000 per year. Then to this, add the cost of originally preparing the plan, annual revision, typing, cost of paper, Regional Office and Washington checks, etc., and the cost per year of maintaining the new plan is probably close to $300,000, or about one-third of a million dollars per year.

A few years ago the Supervisors voted a simple cost keeping system. Look at it now. The Ford originally asked for has developed into a Cadillac. A Cadillac is all right, if you can afford it, and can sacrifice other needs to make the monthly payments, but maybe all we actually need and are able to use is the old Ford. The question in my mind is whether there is enough use made of these cost figures to justify their cost, or would a simple system give all essential figures needed.

The advice given by the CCC Division circular to "KEEP IT SIMPLE" appeals to me.

THE GOOD A MAN DOES LIVES AFTER HIM

Will C. Barnes no longer exists in the flesh, but he lives on as a source of knowledge on Western affairs, and as a conservationist. Not long ago, one Arizona newspaper reproduced a lengthy article he had prepared before his death, contrasting early days in the San Simon country and the present day conditions there resulting from overgrazing and soil erosion.

Now comes the January issue of "Hoofs and Horns", from Tucson, with an article by Barnes on "Heredity in Young Antelope". It includes information on Forest Service experiments in antelope propagation. An editor's note states, "The following article was received by us from the late Will C. Barnes only a few days before he rode over the Long Last Trail. We feel honored, therefore, in presenting to our readers, the interesting piece of personal observation by this great man -- your friend and mine." - R-3 Bulletin.

WHAT "THE HILL" THINKS OF THE CHIEF'S ANNUAL REPORT

"Thank you very much for enclosing a copy of your annual report. I am greatly interested in the question of Forestry, and I have had the opportunity of being with Supervisor Henry R. Koen, of Russellville, Arkansas, on various trips through the Ozark National Forest, the greater part of which is within my Congressional district."
— D. D. Terry, 5th District Arkansas.

"I want to express my appreciation of the orderly and effective arrangement of the material contained in this report, and to compliment you on its assembly. I am much interested in forest conservation and allied matters and your report will be of invaluable assistance." — James E. Murray, Montana, Committee on Public Lands and Surveys.

"I thank you for your report of the Forest Service which has just come to hand. I am particularly interested in what might be called small farm home wood lots and ask that you please send me any regulations or information you may have regarding the Cooperative Farm Forest Act (Public, No. 95, 75th Cong.). I would like to start some activities of this character out in my Iowa prairie district among the small farms." — Fred C. Gilchrist, Iowa, Committee on Agriculture.

"Please accept my thanks for your thoughtfulness in sending me a copy of your annual report as Chief of the Forest Service for the year 1937. I have already read a portion of it, and shall read the remainder at the earliest date." — Henry F. Ashurst, Ariz., Chairman, Committee on the Judiciary.

"Received your letter. I want to congratulate you on the fine report. I went through it this forenoon, read much. It is intensely interesting, forcibly stated, and should have wide publicity. Call on me in any way that I can help you in this great cause." — Walter M. Pierce, Oregon, Committee on Agriculture.

"I appreciate your sending me a copy of your Report of the Forest Service for 1937. If you have any additional copies available for distribution, I shall appreciate your forwarding one to Honorable Walter R. McDonald, Chairman of the Georgia Public Service Commission, Atlanta." — Richard B. Russell, Jr., Georgia, Chairman, Committee on Immigration.

"I want to thank you for your thoughtfulness in sending me copy of your Annual Report for 1937. It is unusually readable form, and I want to compliment you upon your achievement in making an interesting document instead of just a collection of facts. I also want to congratulate you upon the fine showing made by your Service during the past year." — Marvin Jones, Texas, Chairman, Committee on Agriculture.

"Thank you for your letter of January 4. I am leaving next Tuesday evening to go home in order to attend the convention of the American National Live Stock Association on January 13, 14, and 15 at Cheyenne. I intend to take your report with me." — Joseph C. O'Mahoney, Wyo, Committee on the Judiciary.

AFTER MANY DAYS

By Emma H. Morton, R. 6

The Division of Education and Information gave away hundreds of leaflets and other publications to the public during 1937. But bread cast upon the water returned early in December in the form of a post card which bore a Christmas sticker depicting a little girl carrying a lighted candle. The card was sent from Vernon, Illinois, and its message was as follows: "Regional Forester, Dear Sir: Some time ago, in this year, you sent me descriptive pamphlets on the National Forests in Oregon. I found the pamphlets very interesting and helpful and I now take the pleasure in thanking you very greatly for your service to me. The above Christmas sticker has been attached to let you know that I sincerely hope you have a Merry Christmas and a happy, prosperous New Year in 1938. Yours very sincerely, Leonard Davidson."

YE EDITOR DISCOVERS

The following statement by Secretary Wallace appears in "American Forests" for January 1938:

"No one familiar with the existing Federal Government will question the need for reorganization. Probably everyone will accept the thesis that the grouping of activities by Departments should be in accordance with major purposes or functions, and that the end result should be the grouping of related activities by Departments.

"I hold that agriculture is such a major purpose and function. And I place in agriculture all those activities which relate to the use of land and water for producing crops and growing things; those which deal with the use of the crops themselves; those which insure the maintenance for all time to come of the productivity of the land and water; those which insure management of the land for watershed benefits, and finally those which deal with the welfare of people on the land.

"This group of activities is second to none in natural resource conservation. On them we must rely for all our food and clothing and for substantial parts of the materials for shelter and fuel. For the greatest contributions to human life and civilization now and for all time to come we must for this group of activities have correlation and integration in research and planning and in a wide scope of governmental action. This group of activities calls for a unified national program in the most comprehensive sense of the word.

"I sincerely hope that we may have a reorganization of the Federal Government, and that one essential part of it will consist of such a grouping of agricultural activities as that indicated. I shall exert all of my influence to this end."

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The lumber production census of 1936 showed a national cut 24.6 percent greater than that of 1935, corresponding to an increase of 4,816,153 M feet, according to figures recently compiled by the Bureau of the Census in cooperation with the Forest Service. The percentage increase in softwoods and in hardwoods was practically identical. Quantity cut was:

Softwood	20,241,731,000	feet b. m.
Hardwood	4,113,153,000	feet b. m.
Total	24,354,884,000	feet b. m.

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The "Uncle Sam's Forest Rangers" radio program started its seventh year on the National Farm and Home Hour with the January 7 episode. The sketch, which provides intimate glimpses into the lives of forest rangers, was heard for the first time in January, 1932, and has been presented each Friday at 11:30 a.m. CST (12:30 p.m. EST) over the NBC-Blue network since that time.

Harvey Hays and Judith Lowry, both veteran NBC actors who entered radio after successful careers on the stage, have played the roles of "Ranger and Mrs. Jim Robbins" in the sketch since the first broadcast. Raymond Johnson who plays the role of "Jerry Quick," the young assistant ranger, and Lucille Husting, who as "Mary Halloway" portrays the village school teacher, also are veterans in the sketch.

"Uncle Sam's Forest Rangers" has received widespread acclaim for its educational as well as its entertainment interest.

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A study of hemlock bark as a source of tannin, published during the year in Technical Bulletin 566, showed that this bark yields a high grade extract, which is satisfactory for tanning leather, either when used alone or mixed with other tanning materials, according to the annual report of the Bureau of Chemistry and Soils. About 5 tons of the bark are required to make a ton of powdered extract containing 55 percent tannin. An extract of this strength would have a market value of from $88 to $110 a ton, making the waste bark worth from $5 to $8 a ton. On this basis it is estimated that the tannin in the hemlock bark now being wasted in Washington and Oregon has in the form of tanning extracts a potential value of around $3,000,000 a year.

The leather industry uses annually about 115,000 tons of tannin, which is equivalent to 460,000 tons of 25-percent extract. About half of this is imported. The report states that at least 50,000 tons of western hemlock bark are available each year in Washington and Oregon, and that a modification of the logging practices would increase the supply to around 200,000 tons a year.

NATIONAL FOREST PLANTING

Preliminary data prepared by the Division of Timber Management on the approximate acreages, number of trees, and principal species planted on National Forests during the calendar year 1937 are given in the following table. Exact data will be available in March 1938.

State	Acreage Planted	Total M Trees	Principal Species
Alabama	898	843	Slash Pine
Arkansas	804	828	Shortleaf Pine
California	2,977	1,134	Jeffrey and Ponderosa Pine
Colorado	3,275	2,152	Douglas Fir & Ponderosa Pine
Idaho	3,020	2,660	W. White and Ponderosa Pine
Illinois	2,245	2,880	Shortleaf Pine
Indiana	331	368	Black Locust
Louisiana	21,970	24,002	Longleaf and Slash Pine
Michigan	42,031	43,341	Red and Jack Pine
Minnesota	10,476	8,913	Red Pine and Jack Pine
Mississippi	19,220	20,569	Longleaf and Slash Pine
Missouri	3,906	3,106	Shortleaf Pine
Montana	202	180	Ponderosa Pine
Nebraska	989	1,095	Jack Pine
North Carolina	21	19	Longleaf Pine
Ohio	205	284	Black Walnut and other hardwoods
Oklahoma	25	23	Shortleaf Pine
Oregon	445	347	Douglas Fir
Pennsylvania	374	196	Red Pine
South Carolina	52	56	Loblolly Pine
South Dakota	1,264	827	Ponderosa Pine
Tennessee	2		
Texas	12,287	10,308	Longleaf and Slash Pine
Utah	9	7	Lodgepole Pine
Vermont	7	8	Red Pine
Virginia	32	30	White Pine
Washington, R-1	805	698	W. White Pine
R-6	2,765	1,770	Douglas Fir
West Virginia	2,139	1,779	Red Spruce
Wisconsin	20,462	17,002	Red and Jack Pine
Wyoming	167	105	Ponderosa Pine
Total	153,405	145,530	

SERVICE BULLETIN

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> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES. IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT ××× THE TIME HAS COME FOR A CHANGE. AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY ×××× TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES, WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER.
>
> Theodore Roosevelt

Vol. XXII No. 3 Washington, D. C. February 7, 1938

GENERAL INSPECTION

By Howard Hopkins, R-7

Vast changes have occurred during the past ten years in Forest Service activities and work programs. The work and activities on a Ranger District in many Regions today are comparable with the work on an entire Forest a decade ago, and the present Forest work load and activities may be compared with the Regional work load of former Forest Service days.

Ten years ago general inspections of Forests were standard practice and were accomplished by means of detailed visual examination on the ground of all activities and accomplishments of the unit concerned.

During recent years these general inspections have been largely omitted, in order to handle our vastly increased load of functional inspection work. It is, however, disappointing to note that, except for the newly organized Regional integrating inspections by the Chief's Office, the Forest Service is now reinitiating general inspection procedure based on the same type of detailed field examinations used ten and more years ago, with little or no recognition of the different procedure necessary to accomplish satisfactorily an adequate general inspection of a Forest or Region as a whole. An analysis of the present Forest or Regional inspection job will, I am convinced, show the futility of utilizing the detailed procedure of former days to accomplish a general inspection of a unit larger than one Ranger District. The inspectors attempting a general inspection of a Forest or Region, under our former procedure, have been, and may be expected to be, unable to see the "forest" for the "trees."

It is easy, and of little value, to criticize an accepted procedure. The purpose of this note, however, is to propose a new general inspection policy and procedure.

It is felt that a general inspection, based on a detailed visual examination of all activities on the ground, is a function which should be limited to the Ranger District. All general inspections of a Ranger District by the Forest Supervisor or his representative, except when installing and training a new District Ranger, should consist primarily of a review, and sample check on the ground, of the general inspection report made by the District Ranger. As a result of this review and check the Inspector should obtain, in a relatively short time, a clear picture not only of the quantity and quality of the work done, being done, and planned for accomplishment on the District concerned, but also a clear picture indicating the Ranger's opinion of each work project.

In the same way the Regional Forester's representative when making a general inspection of the Forest, after reviewing charts and tabulations indicating work done, to be done and planned for future accomplishment in each activity for the Forest as a whole, would then sample-check on the ground the Supervisor's report on the Ranger's detailed inspection. From these reviews the Regional Inspector should obtain a clear picture of the functioning, both by quality and quantity, of the Forest as a whole and the part it has, is, and will contribute in accomplishment of the Regional plans, programs, and objectives.

Action by the Chief's Office, when making a general inspection of the Region, would include a review of the Regional Forester's report checking on the Supervisor's check of the Ranger's report, with sample inspections on the ground of the areas and conditions concerned. Instructions for accomplishment of all general inspections should provide, of course, for adequate recognition and examination of Service leadership to improve the land or soil, and the social or standard of living conditions in and near the unit inspected; and for proper use of charts and factual summaries to present clearly and briefly the quantity of work done and to be done on the unit, or units, concerned.

The value of this type of general inspection procedure, from the standpoint of training newly appointed District Rangers, Forest Supervisors, or Regional Foresters is, to my mind, of special importance and may be outlined in brief as follows:

When a new District Ranger, Forest Supervisor, or Regional Forester is appointed the proper General Inspecting Officer (the representative of the Forest Supervisor, Regional Forester, or Chief) should assume the position of the new appointee and make a general inspection of his unit with him. This would not only demonstrate to the new appointee the jobs done and to be done, in both quantity and quality, but it would also enable the Inspector and Inspectee to obtain a complete understanding, and if possible a complete agreement, as to the most satisfactory procedures and practices, and the proper order of priority, to reach most effectively and efficiently the desired objectives of the unit as a whole.

A general inspection, if properly handled, should permit a material decrease, in number and cost, of functional inspections by men on the Supervisor's, Regional Forester's, and Chief's staff. Following an adequate general inspection functional Inspectors should ordinarily contact the unit inspected (Ranger District, Forest, or Region) only at the request of the officer in charge in order to assist him to place his unit in more ideal condition, and to correct and prevent unsatisfactory conditions indicated by the previous general inspection.

Proper handling of inspection work is vital to any organization. A properly handled inspection should result not only in a picture of the accomplishment on the ground and of the ability of the administrators of the unit inspected, but should also be an education and inspiration to those inspected. I should like to see the general and functional inspection practices of the Forest Service analyzed and new inspection policies, procedures, and practices adopted, so that these inspections will most efficiently accomplish what they can and should accomplish for the benefit of each unit inspected, and for the Service as a whole.

ARMY OF THE FUTURE

"How many of the billions spent in New Deal emergency projects have gone into permanent enrichment of America's capital equipment none can know. But we venture that one of the most enriching of these public enterprises will prove to have been the Civilian Conservation Corps.

"More than 2,000,000 young men, Director Fechner reports, have been benefited by this first of the Roosevelt adventures in conservation. These enrollees were taken out of city byways and breadlines and sent out into the forests and plains to fight the good fight against nature's adversaries. There in model camps they toughened their muscles, improved their minds and skill and won back their self-respect. For more than four years the CCC has been conserving our country's priceless resource, young manhood.

"Director Fechner's report tells us also what these peace battalions have been doing to save our dwindling natural wealth -- our rivers, prairies, forests and public lands -- from floods, fires and pests. An idea of the extent of their rebuilding may be gained from the reforestation records, disclosing that in the present fiscal year the CCC planted 365,000,000 trees -- 1,000,000 trees a day!

"The CCC has been extended until 1940, and a pending bill by Sen. Thomas of Utah would make it a permanent Government institution. We hope we can afford to keep it, for it is making the nation a safer, richer and more habitable place. Perhaps some day we will have only such a standing army as this to police the out-of-doors against the real enemies of the race instead of to resist hypothetical human enemies." - Washington Daily News, December 10.

MORE ON "THE NATIONAL FORESTS AS EMPLOYMENT RESERVOIRS"

By Walter B. Dillon, Kisatchie

I have read Mr. Tinker's front page thought provoker in the November 1 issue of the Service Bulletin not only with avid interest but with bated breath, in anticipation of the loud and blinding crashes of resentment that I thought surely would emanate from sundry sources of the "rugged individualist" types.

I am wondering if the full import of Mr. Tinker's proposal has seeped through the consciousness of very many of our own personnel. I may sound facetious - in fact, I admit it en passant - but nonetheless there are thunderous reverberations lurking in every line of Mr. Tinker's short article. Like TNT, it is subject to detonation from the slightest careless touch.

I wonder, also, how many of us remember the fireworks created by Theodore Roosevelt when he promulgated the doctrine from which is quoted the standing title block of the Bulletin. I have for the past few years doubted that very many of us dared to continue the fight even if we felt so inclined. My hat comes off to Mr. Tinker for blowing the lid off the Conservation Pot and allowing the doctrines underlying real conservation of national resources to come out into the open where they can be both tasted and tested and where the general public may be given a chance to show whether or not they want real conservation.

What Theodore Roosevelt started Franklin D. Roosevelt is, I believe, willing to finish if the people will show him they want it. Should not we, therefore, as pioneers and leaders of conservation, go just as far as it is judiciously possible to go in order to give him some tangible lead.

We are organized for two primary purposes: conservation of timber resources and protection of watersheds. How can we properly carry out either of these primary objectives unless we are willing to brush aside selfish individual economic interests wherever and whenever they interfere with the economic interests of the Nation as a whole? Concretely, why should we allow the financial interest of a given lumbering outfit to prevent us from liquidating mature and overmature timber when we believe it ready to market? That is the meat in the cocoanut and the TNT contained in Mr. Tinker's article.

For myself, I say: Okay, General, shoot the works!

THE FOREST SURVEY

By R. D. Garver, Washington

First the Capper report, next the Copeland--both largely office compilations because money and time were lacking--and now the National Forest Survey, which by means of field work, office computations and interpretation of data, is progressively painting a picture of the forest resource situation with accompanying principles for permanent land use. Possibly this will be the climax and, if so, there could be another CCC (Capper-Copeland-Climax).

Initiated in 1930 in the Pacific Northwest, the Forest Survey has been extended to California, Northern Rocky Mountain, Lake States, Southern and Appalachian regions where it is carried on by the respective Forest Experiment Stations. About one-half our total forest area, or some 290 million acres of land has been studied in the field; office work, intentionally, has lagged somewhat due to pressure for field coverage, but even so 100 preliminary releases have been issued; also forest type maps, generalized in the South and detailed in the North and West, covering portions or all of a dozen States.

In the Northwest, Lake States, and South, where field work is practically done, primary effort is directed to the preparation of final comprehensive reports; in California, Northern Rocky Mountain, and Appalachian regions major attention is being given to field work. To date the work has cost about one cent per acre.

This is a small cost for the frame work to which can be fastened the details of intensive work for special areas involving sustained yield plans, acquisition programs, and dependency zones. Demands for the frame work crop up regularly from large and small interests, both public and private, prompted by such things as the pulp development in the South, the timber problem in the Northwest or the timber supply within reach of certain cities or plants. Requests of this character early led to a number of existing releases.

Nearly three-fifths of all land in the South is in some stage of forest growth but only about one-tenth of this area, principally in the longleaf pine belt, has less than 80 seedlings per acre, the rest supporting trees from this minimum to full stocking. The problem region-wide is not so much barren land as it is deficient growing stock. Accepting three-fourths to one cord growth per acre per year as good, then finding an average of only two-tenths of a cord growth in northeastern Florida indicates only about one-third or less satisfactory stocking and incontrovertibly sets up the primary goal -- more productive use of forest land. The need for this and the seriousness of the situation for the entire naval stores region stands out boldly when computation shows pine growth only 4½ million cords and requirements for projected, new and old plants of 6½ million cords, thus displaying a warning signal of a 2 million cords overcut. Contrasted is the pine area west of the Mississippi River, where there is a 1½ million cords excess. How to balance growth and depletion to maintain and build up growing stock, correlate and distribute industrial requirements with forest productive capacity of the soil--these are problems encountered in the interpretative phase of the Survey in all regions.

In the Lake States heavy cutting has left its mark--in Michigan and Minnesota alone there are 7½ million acres of deforested land and 11 million acres of aspen--but the situation is by no means hopeless. What is needed is a conscious effort to husband the virgin timber until second growth comes into merchantability. Survey estimates show timber volume including scattered stands formerly not considered operable at least 15 to 20 percent higher than given previously and a growth rate much better than commonly assigned the region. Generally the data indicate that with moderate cutting and good forest practice a large share of existing industries can be maintained until second growth comes into merchantability.

For the big reservoir of virgin timber in Oregon and Washington the figures show this region as supporting nearly one-half the total volume of saw-timber in the United States and supplying logs for more than one-third of the lumber cut. For the National Forests in the Douglas fir region current survey data show a volume about 25 percent greater than former estimates, which did not include all pulp species. For the Douglas fir region alone the stand is about 625 billion board feet and four-fifths of the total land area is forest land; for the decade preceding 1933, timber depletion was 8 billion and growth only 2 billion, but this is not unexpected or undesirable considering the vast volume of virgin timber. It does raise questions of who is to carry the land, what is the intent of ownership, what kind of land-use plan will meet the problem and keep the land permanently productive in the interest of social obligations? Final Survey report for the Douglas fir region, now well along, will be helpful in working out the solution to these and other forest land problems.

Bearing on this is the question of national requirements for wood, -- a phase of the Survey investigation -- to determine not only immediate needs but long-time trends in wood use, since timber is a long-time crop. All major items have been studied in the field and final reports are in preparation. Wood will stay in the picture but generalizations are unsafe, for research may change the trend. Wood for auto bodies has lost out, but for decentralized small house construction it ranks high.

To be of the most value the initial Survey must be completed in the shortest possible period because forest conditions change and the information is currently needed. To do this within the next half-decade will require increased regular appropriations about triple those of the past several years. Since about one-half our total productive area is forest land, the expenditure of even one cent per acre, (cost of the survey to date) will run into a considerable sum, but undeniably it is an expenditure fully justified in contributing to plans for its permanent use for forest production.

HERE AND THERE WITH THE CHIEF'S ANNUAL REPORT

J. F. Bogardus, Secretary, Pennsylvania Department of Forests and Waters: -- "May I congratulate you upon this interesting and well arranged report. In fact, it is the best Annual Report of the Forest Service that has come to my attention."

Stanley Andrews, Editor, The American Cotton Grower, New Orleans: -- "Perhaps a briefed-down Departmentalized and high-lighted report, such as you released this time, would not only accomplish the purpose of making the official record but making a report usable to the average one of us."

C. R. Gray, Vice Chairman, Board of Directors, Union Pacific Railroad Co., New York: -- "I have read the report with great interest and congratulate you upon making it a very readable and easily understandable one. I have had the pleasure of meeting a number of your field men and I have been deeply impressed with their personalities, tremendous interest in their work and their sympathetic and common sense handling of the manifold problems that come to them. Please send a copy of your report to my successor, Mr. W. M. Jeffers, President, Union Pacific Railroad, Omaha, Nebraska."

A. L. Barrows, Executive Secretary, National Research Council, Washington, D. C. -- "We have been especially interested in noting the wide range of research conducted and advocated, for it is the findings from such investigations as these which alone can indicate the administrative policies to be followed for the proper utilization of this important national resource."

S. L. Coy, The Northwest Paper Co., Cloquet, Minnesota. -- "Your report is highly comprehensive and will be of unusual interest even to the layman. With timber as the only natural resource which reproduces itself, there is surely an obligation facing the American people to see that real efforts are made to assist in its reproduction."

C. W. Johnson, President, St. Louis, Mo. Basket and Box Company -- "I wish to acknowledge your 1937 booklet on the Forest Service, and to thank you much because it is just what I have a desire to obtain - to get a better slant on what the Government is doing in reforestation. Your report is very intelligently prepared and I appreciate it very much."

John Collier, Commissioner, Office of Indian Affairs, Department of The Interior, Washington, D. C. -- "Your annual report proved to be so irresistible that I read it right through during my day's work. I wonder if I could get a certain number of copies of this report for members of our Service, say a dozen or twenty?"

YE EDITOR DISCOVERS

The Division of Fire Control has recently given consideration to a high speed, track-laying tractor manufactured by the Marmon-Herrington Company, which was developed very largely through the cooperation of that company with the Ordnance branch of the U. S. Army. A demonstration was witnessed at the Aberdeen Proving Grounds where two sizes of these tractors made 25 to 30 miles per hour on paved highway. In running over the rolling country in that vicinity the tractor made 15 or 20 miles an hour, pulling a gun carriage with a French 75 mounted. The Army drivers put the tractor with trailer or gun carriage through deep mud holes and over sharp breaks in topography and through sand. In most instances it performed very well. The machine, however, has a very short wheel base which would appear to make it somewhat dangerous in steep country. The track is a continuous band of hard tire rubber. It is believed that this tractor has good possibilities for use in certain sections, as for instance the lower part of Region 8, for getting quickly to a fire and pulling a tank trailer or plow. Negotiations, therefore, have been made with the Marmon-Herrington Company to lend the Forest Service a tractor for demonstration in the South, probably Florida, during February. It will then be decided whether this tractor as is, or with alterations, can be developed into an important piece of equipment for fire control.

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Extensive organizational changes were made in the Biological Survey on February 1, according to a recent Department of Agriculture press release. The Bureau's Divisions of Game Management and Migratory Waterfowl were replaced with four divisions - Predator and Rodent Control, Game Management, Wildlife Refuges, and Construction and CCC Operations. They will constitute the Bureau's Washington office along with the Divisions of Wildlife Research, Land Acquisition, Administration, and Public Relations, which remain unchanged.

Stanley P. Young will head the new Division of Predator and Rodent Control. Mr. Young, who during the past three years has been Chief of the Division of Game Management, which included control activities, has been in charge of the Bureau's control work since 1927.

Albert M. Day, who for the past three years has been in direct charge of predator and rodent control, will assist in preliminary work pertaining to the administration of the recent Act authorizing Federal aid to States in wildlife restoration. He has been assigned temporarily to the Office of the Chief.

J. Clark Salyer, Chief of the Division of Migratory Waterfowl, will head the new Division of Wildlife Refuges.

The new Division of Construction and CCC Operations will be in charge of Hugh W. Terhune, one-time representative of the Bureau in Alaska and member of the Alaska Game Commission and recently superintendent of the White River Refuge in Arkansas.

W. E. Crouch, formerly in charge of big-game refuges and game-management agents, will head the new Division of Game Management.

Chiefs of Divisions not involved in the reorganization are: Dr. W. B. Bell, Wildlife Research; Rudolph Dieffenbach, Land Acquisition; W. Roy Dillon, Administration; and H. P. Sheldon, Public Relations.

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Net receipts from the National Forests for the period July 1 to December 31, 1937, totaled $2,291,235, or an increase of $194,413 over the same period last year. Receipts by Regions were as follows:

R-1 - $207,661, a decrease of $17,893 over same period last year
R-2 - $379,784, an increase of $73,783 " " " " "
R-3 - $260,253, an increase of $48,771 " " " " "
R-4 - $227,262, a decrease of $1,125 " " " " "
R-5 - $330,391, an increase of $5,468 " " " " "
R-6 - $493,237, a decrease of $5,183 " " " " "
R-7 - $61,567, an increase of $7,523 " " " " "
R-8 - $231,245, an increase of $40,414 " " " " "
R-9 - $68,168, an increase of $37,529 " " " " "
R-10 -$31,667, an increase of $5,126 " " " " "

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A recent chart from Director Fechner's office shows average number of man-days worked by CCC enrollees during October for all Using Services. This means days when enrollees were actually released for work. Differences between Using Services are striking. For example:

Corps of Engrs.	21.0	SCS	20.1
Indian Service	20.9	Recl. Serv.	19.9
Mil. Reservations	20.6	Grazing	19.7
Biol. Survey	20.5	For. Service	18.9
Ag. Engrs.	20.4	Nat. Pks. Mons.	18.6
State Parks	20.2	B.A.I.	12.0

There were 5 Sundays and 5 Saturdays, or 10 non-work days in October. Moreover, a large number of new enrollees entered the camps and had to be "conditioned" for a week or 10 days. The Corps of Engineers uses only Veterans, had no more than normal losses in October and new men needed no "conditioning"; probably there was little change in personnel and no conditioning in Indian camps. B.A.I. had only 4 camps, 3 of which are at Beltsville, Maryland, and there was an interval between the departure of white companies in October and the arrival of colored ones in this case. Reasons for other low averages are not so apparent.

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A total of 4,520,000 cubic yards of concrete have been placed in the structure, built in the Columbia River at the head of the Grand Coulee, 92 miles west of Spokane, Washington, according to a recent Department of the Interior press release. This compares with a total of 4,498,314 cubic yards of concrete placed in Boulder Dam, the Boulder Power House, and all other appurtenant structures of the great Boulder Canyon Project on the Colorado River. The base of Grand Coulee Dam thus has already become the largest masonry structure built by man.

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The February issue of FIELD AND STREAM contains a "guest editorial" by Gifford Pinchot entitled "An Old-Timer Looks at the National Forests", in which he discusses some of the criticisms made by Colonel MacNab in an editorial "Who Owns Our National Forests" in the October 1937 number of the same magazine.

In conclusion Mr. Pinchot says: "The moral of all this is that the Forest Service is doing a grand job on the National Forests; that it is using its head and getting results; that the National Forests are not serving merely one class, but all the people; and that they are more widely used and better handled than they ever were before. I have been there to see, and I testify to what I have seen."

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A conference between Mr. M. H. Smith, of the D. B. Smith company, which furnishes the Indian Back-Pack Pump, his mechanical engineer, and representatives of Region 7 and the Washington Office Division of Fire Control was held on January 14, at which plans were approved for the production of 14 chemical back pack outfits (to be known as KEMPAK) for distribution to a number of Regions. It is hoped that at last the mechanical difficulties have been overcome and that the samples sent out for experimental field use will meet with a favorable response and lead to enough orders to get quantity production prices.

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During the calendar year, 1937, H. N. Wheeler, Chief Lecturer, gave 115 lectures - with a total attendance of 27,209. He also gave 12 radio talks.

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R-10 extended special Christmas greetings to all CCC enrollees in Alaska in the form of a one-page specially designed drawing and felicitous wording. The greetings were placed on all Christmas dinner tables in all camps. The Region reports that these greetings were well received and added to the cheer of the occasion.

PAUL REDINGTON RETIRES

By A. B. Hastings

With his retirement on January 31, 1938, Paul G. Redington completed more than thirty-four years of public service.

A graduate of Dartmouth College, class of 1900, and of the Yale Forest School, 1904, Paul became Student Assistant in the Bureau of Forestry July 1, 1903. In this capacity he got his first taste of public service under the inspiring leadership of Gifford Pinchot. During the formative days of the Forest Service such men had rare opportunity for rapidly gaining experience and position, and Redington went steadily and happily forward with his pioneer associates building the foundations strong to support the superstructures of the near past and present. He successively became Forest Assistant 1904; Forest Inspector 1906; Assistant District Forester, D-2, 1908; Associate District Forester, D-2, 1910; Forest Supervisor of the Sierra, D-5, 1911, and of the Sequoia, 1916; City Manager, Albuquerque, by way of a brief L.W.O.P; District Forester, D-3, 1916-1919; District Forester, D-5, 1919-1926; Chief of Public Relations, Washington Office, 1926; Chief of the Biological Survey, 1927-1934; and back to the Washington Office of the Forest Service March 1, 1934; Supervisor of the Shoshone National Forest from February 1, 1935, to March 1, 1936, and then to the Washington Office until his retirement.

Behind this record lies a lifetime of interest and fine work in the cause of conservation. The number of friends which he made along the way is generously large and there are not many of us to whom the friendship of others has meant more than it has to him. He was gifted with the happy faculty of creating and maintaining in and out of office an atmosphere of comradeship based upon mutual respect and confidence. Through this and other abilities he secured the loyal service of those who worked under his supervision to the lasting benefit of the Service.

We, his associates, admire him for the things which he has accomplished, but, above all else, we love him as a friend and wish for him complete recovery of health and years of happy life ahead.

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FEB 26 1938
U. S. Department of Agriculture

FOREST SERVICE U S DEPARTMENT OF AGRICULTURE

SERVICE BULLETIN

CONTENTS CONFIDENTIAL

> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT ××× THE TIME HAS COME FOR A CHANGE AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY ×××× TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES. WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER
>
> Theodore Roosevelt

Vol. XXII No. 4 Washington, D. C. February 21, 1938

THE CLOWN OF THE WOODS

By John H. Hatton, Washington

"Hey - Hey - Back - Back -- A-oo -- A-ooo!"

I was standing on the veranda of the Woodrock Ranger Station in the Bighorn National Forest, Wyoming, when the clarion sound broke on my ears like the sharp, repeated bark of a Krag Jorgenson. I looked and there stood "Shorty" whose full title was F. M. Calvin -- same last name as the late Calvin Coolidge's first -- a competent sheep herder and a character well known and respected by all Bighorn Forest officials. His hands were funneled against this mouth and directed across the open spaces to the front of the station. Nearly half a mile in the distance a cloud of dust rose like magic. Beneath it were fifteen hundred ewes and their sturdy lambs faced about as one and wildly scrambling toward the adjacent woodlands. The rumbling of nearly 6,000 hoofs was like muffled distant thunder. They had crossed the deadline which separated their grazing grounds from an area reserved for campers and tourists. They knew full well their master's voice and the meaning of his sharp command. With the first two calls their heads rose in perfect unison from their feeding. With the second two they were in wild retreat, and with the softer more soothing notes of the last they seemed to sense they had done their master's bidding and resumed their grazing upon the luscious weeds and grasses.

Turning to me he said: "Do you know I like this woods allotment when you know how to handle it. My sheep are doing fine and I don't have any trouble from straying. It is a little rough in places among the windfalls and old logs, but the feed in the open timber is good and I am getting good weights on my lambs. A lot of sheepmen don't like the timber but I have learned this allotment and I don't mind the timbered parts at all." (You have noted the personal interest expressed in the sheep, which spells the difference between a successful and an unsuccessful herder).

"Any trouble with bears and other varmints?" I inquired.

"Say, let me tell you something about bears. I'll admit a lynx cat will kill lambs. I have seen where they have killed them lying right beside their mothers. You've seen a mother ewe lying down back to back with her lamb, and I've known of these sneaking varmints actually killing the lamb and never waking its sleeping mother. But I'm a friend of the bears. They are the clowns of the woods, and I'm for protecting them. They are charged with a lot of crimes they don't commit. A cowpuncher once showed me where he said a bear had killed four big cows on a spot no bigger than this house. Now, no one can tell me that a bear will do a thing like that. Once in awhile there is a killer, but no bear -- killer or not -- will do a thing like that. Whenever I hear of such incidents I put that puncher down right now as neglecting his business. Those cows were killed by some kind of poison weed and maybe the bears have eaten on the carcasses afterwards; but he's made the goat of the cowpuncher's neglect and laziness. Why, do you know I have had a black bear running with my sheep for four summers now and I haven't had a single loss? The sheep think no more about her than of my sheepherd dogs. She just looks to them like a big black dog. Last year she had a cub and I saw them both among the sheep every few days. I saw their tracks nearly every day. This year she had another cub. (Something unusual for a bear to have young each year, you know) and now I have three of them -- the mother, her yearling and this young cub. I have watched them closely as they tear the rotten logs apart in search of ants and grubs or chipmunks and mice, but never the loss of a sheep. Now mind you, I'm not telling this to all my friends down in the valley because some fool among them would be up here with a 30-30. These bears are my friends. I like to watch them and they're going to have every protection I can give them".

"Why do you call bears the clowns of the woods?" I asked.

"Because they are always pesticating around like some darned kids. I've sat on the rocks and watched their capers by the hour. I remember once a mother and two cubs. The cubs were standing on their hind legs and sparring playfully like a couple of boys when one hit the other a stinging side glance that made him mad all through, just as you and I have felt when we were kids. They began sparring in earnest. Finally the one that got slapped got the other down and was mauling him unmercifully. The under-fellow began to squeal and cry and old mother bear comes over, pulls the top-fellow off and giving him a slap sent him tumbling. The other little fellow kept crying like a child and mother bear soothed and licked it just like a human mother would pet and kiss her injured child. The other little fellow was sore all through and humiliated from the punishment his mother had given him and kept running in at his mate for another scrap but the mother kept sending him away with a cuff or a growl until it looked to me just like he was saying to himself: 'Just you wait until I get you off alone and I'll give you something to squeal about.'

"Have you ever watched a bear catch a rock marmot?" he continued. "Sometimes a marmot will seek shelter under a loose flat rock and I have seen an old bear take one paw and lift up the rock and with the other paw smash the marmot flat with a single blow before it could get away, as quick as a cat would catch a mouse. The bears have furnished me many hours of pleasure and amusement with their funny and almost human antics as I have herded the sheep.

"Yes, I'm for conservation, and especially for conserving the bear!"

FOREST MENSURATION IN OLD ENGLAND

The following is taken from a recent book "The Village Carpenter" by Walter Rose (Macmillan Co.) p. 28.

"For the measurement of trees my father always used a string and the slide-rule. As the trunks of trees taper lengthwise, the middle was taken as the average girth round which the string was to be passed. I have helped him many times, holding the string carefully with my fingers at the place where it terminated the circumference as measured, afterwards doubling it and then redoubling it twice, with the result that the folds held in my hand were each an eighth of the total circumference. Then he would direct me to drop one-eighth part -- this an allowance for the bark -- and double the remaining seven-eighths twice. Each fold of the string was now one-fourth part of the seven-eighths of the circumference. He would take the length of this with his rule. The measurement thus arrived at represented the "girth", or one side of a squared log, supposing the content of the log to have been square instead of round." - Contributed by A. Koehler, Forest Products Laboratory.

A LESSON FOR FIRE CONTROL

By H. T. Gisborne, Northern Rocky Mountain Forest and Range Expt. Sta.

The December 2, 1937, issue of "Engineering News Record" contains an abstract of an address by John C. Page before the Nebraska Historical Society. The item deals with agriculture, water conservation, and irrigation works in the so-called drought-belt. It stresses one characteristic of the agricultural problem which is equally true of the fire control problem. Major Powell, director of the Geological Survey called attention to this characteristic in 1889, nearly 50 years ago, when he stated: "they will have a series of years when they will have abundant crops; then for two or three years they will have less rainfall and there will be failure of crops and disaster will come on thousands of people ....." He was right.

Probably the people heard, understood, and agreed. At least they built water conservation and irrigation works. Then came the series of years of abundant rainfall, and they forgot. The abstract states: "Skeletons of old irrigation works dot the twilight zone of the Great Plains. Some of these failed because the farmers who were to have been served forgot that drought recurs and refused to keep their water systems in operating condition during wet years." The farmers were wrong.

Last year was a relatively easy fire season in most parts of the United States and it may be that the rainfall cycle has turned, as contended by C. G. Abbott of the Smithsonian Institution and others. If so, we may be entering a period of easy fire seasons and we may be inclined or even forced to let our fire control facilities, built to meet bad seasons, go to pot. If we feel inclined to let them go, we certainly ought to take a lesson from the history of irrigation in the drought-belt. If attempts are made to force a dangerous curtailment of maintenance we should fight, with the lesson from the drought-belt as our basis.

One easy year is not likely to cause much forgetfulness or pressure to reduce, but let two or three easy seasons follow consecutively and there will most certainly be both weak memories and high pressure. The two would be fatal. Let's remember Major Powell's verified forecast. Let's not do like the farmers did.

THE MAN ST. PETER LIKED

No man who plants a tree can be wholly bad.

Whoever he is, he has been host to the future in good faith. He is for Mankind. So, I think he will go to his Heaven wherever that is.

This man who plants a tree is the man who makes all the difference to tomorrow between the shiftless, hopeless town or home and the shaded, fruitful village and the happy home.

Trees planted or trees saved are the best proofs we have that man is not vile. . . nor wholly selfish.

Thirty years ago, my uncle planted a group of firs at Taliesin. They are now fifty feet tall — a mass of deep green, summer and winter. I look at them and take my hat off to him. They prove him to have been a man of quality . . . so much better than any headstone or any tale of his deeds.

As for "Heaven" I am sure Saint Peter at the Gate asks: "Did the man plant a tree?" "Yes, your reverence." "Did the tree live?" "Yes, your holy eminence." A pause. . . "Ah," says the venerable Saint. "I had almost forgotten." And he would add another question — "Did he plant the tree in a good place?" "Yes, your worship." "Then open the gate wide! Let the man come in and go where he pleases."

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Were the answer "No" to the first question -- "did the man plant a tree" -- St. Peter would stand the man aside . . . outside . . . under suspicion . . . something must be wrong with him.

Were the answer "No" to the second question -- "did the tree live" -- St. Peter would say: "Too bad -- good impulses but improvident. . .let the man sit down just inside the Gate. . . we will consider him. He probably neglected to water the tree."

Were the answer "No" to the last question -- "did the man plant the tree in the right place" -- St. Peter would sadly shake his wise old head and say "Never mind! Few do -- it is enough that you now know you planted the tree in the wrong place." And the saintly gatekeeper would smile additional welcome.

Whoever plants a tree takes out insurance against Hell.
Nature will take care of him.
He is her own Son.

- Frank Lloyd Wright (In "Coronet")

MURDERER OF NETTLETON CONFESSES

Vernon Cox, a 19 year old lumber worker, confessed Wednesday to the fatal shooting of Royal Nettleton, Junior Forester, formerly of the Nicolet National Forest, Wisconsin, while hunting near Long Lake last November, according to Sheriff Ramsdell of Crandon, Wisconsin.

The youth related how he had followed deer and wildcat tracks and came upon the tree where Nettleton was making observations. Thinking it a cat, according to the confession, cox fired twice. After watching what then followed, how Nettleton struggled to the road and was picked up by two men to be taken to a nearby camp, Cox returned home.

The F. B. I. ballistics experts traced the bullets that caused Nettleton's death to a Springfield rifle which was later found to be the gun loaned to Cox by a local resident. Cox's version of the shooting does not coincide with Forest Service officials' theory of the fatality. Cox insisted the shooting was accidental and that he was afraid to give himself up. Cox has been formally charged with first degree murder. He pleaded "not guilty" at preliminary hearings. (Excerpts, Milwaukee Sentinel. - R-9 "Daily Contact", February 5 and 8)

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Junior Forester Royal M. Nettleton, 29, of the Nicolet National Forest in Wisconsin died November 28 as a result of complications from a bullet wound and loss of blood. Nettleton was shot through the right leg late in the afternoon of November 24 while engaged in checking a "seen area" map for Long Lake lookout tower from the vantage point of an aspen tree.

Last month a reward fund of $1,000, which was made up by individual subscriptions of not to exceed $1 each from members of Region 9, was established and offered to anyone who could produce information leading to the arrest and conviction of the murderer. It is understood that the fund will be given to Mr. Nettleton's widow in case no award is made.

If passed, the bill (H.R. 9022) introduced on January 18 by Honorable Matthew A. Dunn of Pennsylvania, "to authorize the Bureau of Investigation to investigate and assist in the prosecution of cases involving the killing or assaulting of officers of the U. S. Government," will be of considerable help in cases of this kind.

EARLY COLORADO CONDITIONS

By Graydon E. Klipple, Rocky Mountain Forest and Range Expt. Sta.

"The southeastern Colorado ranges have not been worth a damn since the dry years of the nineties," declares "Uncle" Fred Soupeset of Rocky Ford, Colorado. "Uncle" Fred came to La Junta, Colorado, in May 1876. He started riding the ranges to the south and east that season. Entering the cattle business for himself in the late seventies he established his ranch headquarters in Chacuaco Canyon, about fifteen miles west of Kim, Colorado. For thirty years he was a familiar figure at cattle round-ups from the Arkansas River on the north to the Canadian on the south. He knew the area when the range was still all but virgin. Grama and buffalo grass, with grama predominating, formed a dense sod over the entire region except for areas around watering places where the stock had tramped it out.

Galleta grass had not made its appearance and did not until after the ranges had been severely overgrazed. Mr. Soupeset stated that he did not know what a Russian thistle was until late in the nineties. The overgrazing began about 1886 and the very dry years of the early nineties completed the destruction of the range. Overgrazing resulted as much from cattle being held over, due to low prices, as anything.

The area that is now Baca County was famous for its herds of mustangs during Mr. Soupeset's early years on the range.

"The grass cured a golden yellow in the fall and made good feed all winter. Nowadays the grass hasn't any substance in it. It turns white and most of it blows away before winter", was his comparison of the early-day feed with that of the present time. He stated that an average of fifty acres of range per cow was needed for dependable year-round feed and maximum growth, even in the early days.

"I'd like to recommend a plant which the Spanish called Fillaree for experimenting with as a range plant", remarked "Uncle" Fred in the course of our visit. "Cattle from ranges where it grew always looked like they had been blanketed. Their hair was slick and they wintered in much better flesh than cattle on ranges where it did not grow. The Ute Creek ranges in northeastern New Mexico had more of it than any other place. You would be doing something if you could get it to grow in place of these Russian thistles."

MOBILE RADIO EQUIPMENT

(Excerpts from Radio Laboratory letter)

The subject of mobile radio equipment is being discussed to considerable length. The regional radio men are generally giving mobile radio development a high priority rating.

We are investigating the possibilities of both 3000 kc. and 30,000 kc. two-way mobile. There is an ultra-high frequency mobile installation in one of the Laboratory cars which has given better performance than was anticipated. For example, this car maintained communication with the Laboratory all the way to Columbia Gorge Ranger Station (airline distance about thirty-eight miles). This route is "blind" all the way. On the other hand, during a run towards Zigzag Ranger Station satisfactory communication terminated at a distance of only eighteen miles.

The mobile transmitter, which is our design, has been standing up under test quite well. The mobile receiver is the best commercial job we could find for the purpose. We have performed several major operations on it and our tests indicate it will have to be practically rebuilt in order to eliminate its tendency to drift off frequently. We will need to suppress vibrator hash, simplify tuning, reduce battery consumption, and make some other improvements.

Mobile antennas adaptable to any type of vehicle for the western Regions where there is much low hanging brush and rough mountain roads have given us a deal of concern. We now have an inexpensive antenna that has stood up under one season's hard use and may be satisfactory.

Investigations of police two-way radio sets leads us to believe it is far too expensive, short-ranged, and not sufficiently adaptable to various types of vehicles for Forest Service use. Hence, we have had to go pretty much on our own. We now feel the hardest part of the development work has been accomplished.

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YE EDITOR DISCOVERS

One hundred and four life saving schools were conducted for enrollees in the Civilian Conservation Corps camps during 1937, and a similar program has been outlined for 1938, according to a recent announcement by Director Fechner.

These CCC life saving schools are held in cooperation with the American Red Cross, which trains two Army officers from each CCC District in their National Aquatic Schools. Two enrollees from each camp are then sent to the District life saving school where they are trained by graduates of the Red Cross classes. These enrollees, in turn, then give life saving instruction in the individual camps.

In 1937 a total of 3,037 boys were enrolled in the life saving schools. Out of this total only 254 failed to pass the tests. In order to make the life saving program more effective and to arouse added interest among enrollees, a film "Life Saving", will be shown in the CCC camps this year.

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Radio Guide's Medal of Merit Award is being presented to the National Farm and Home Hour. The award, which is given for excellence in broadcasting, is being made by the editors of the national radio magazine in recognition of the outstanding service the National Broadcasting Company has rendered to agriculture during the past decade through the medium of the Farm and Home Hour.

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The following new publications may prove of value to those interested in photography or actively engaged in taking photographs for official use:

Miniature Photography. By Richard L. Simon. 168 pp. Simon & Schuster, New York. $1.75. Written in a simple and comprehensive style in order to make good picture taking easy. There are chapters on films, on exposures, on filters, on developing, on gadgets- to mention a few.

Creative Camera Art. By Dr. Max Thorek. 156 pp. Fomo Publishing Company, Canton, Ohio. $3.75. Dark-room magic is discussed in detail and made clear for those having some background in this work.

Making Pictures with the Miniature Camera. By Jacob Deschin. 156 pp. plus 47 halftones. Whittlesey House, New York. $3. Elementary manual useful to beginner and information on what kind of pictures to take.

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American exports of printing papers, books and other printed and lithographed matter totalled $24,712,450 in value, in 1936, according to data contained in the report, "Foreign Graphic Arts Industries", a 382-page study embracing all branches of the printing art, just released by the Bureau of Foreign and Domestic Commerce. Of this total, books are represented by $4,297,136; other printed and lithographed matter, $15,632,439; and printing paper by $4,782,875, the report states. Of printing papers, the report continues, United States exports to Latin America totalled for 1936 $2,050,286; to the Near East, Far East, and Oceania, $1,764,408, the remainder of slightly under one million dollars being distributed throughout the rest of the world.

The United States with the Dominion of Canada far outranks the rest of the world in paper production; the Dominion of Canada is the largest paper-exporting country in the world, while the United States is the largest paper-consuming country in the world.

Copies of the report, "Foreign Graphic Arts Industries," Trade Promotion Series No. 172, may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., or through any office of the Bureau of Foreign and Domestic Commerce. Price 35 cents.

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"Forestry as a Profession", an unnumbered FS publication originally issued in 1927, is superseded by "Careers in Forestry", Miscellaneous Publication No. 249, recently received from the printer. The new publication, consisting of 15 pages, contains considerable additional information and has a very attractive cover. This publication should fill a long-felt need for information of this kind to answer the numerous inquiries received by the Service.

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One of "Uncle Sam's Forest Rangers" radio fans is much perturbed about the future of Mary, the schoolteacher. In fact, he threatens to do something about it unless Jerry changes his technique. Writing to "Ranger Jim Robbins" this fan says:

"The time has come when we refuse to remain inactive in the matter, and I appeal to yourself and the good wife Bess to present the facts to Jerry of the danger of his losing her altogether if he continues to fan around like a blushing 14 year old boy every time her name is mentioned.

"I am a man of good age, with plenty of means to take care of her without teaching school for a living, and_I_like_Mary.

"You may think that I am fully supplied with exaggerated ego to even suggest such a thing, but I will be darned if I don't come out there and get acquainted with Mary with your permission. It takes nerve and a bank account to accomplish things in this world. Jerry is the right man for Mary and I shall not appear on the scene until I hear from you."

FOREST SERVICE U S DEPARTMENT OF AGRICULTURE

SERVICE BULLETIN

CONTENTS CONFIDENTIAL

LIBRARY
MAR 26 1939

> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT xxx THE TIME HAS COME FOR A CHANGE AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY xxxx TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES. WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER
>
> Theodore Roosevelt

Vol. XXII Nos. 5 and 6 Washington, D. C. March 7 and 21, 1938

SECRETARY WALLACE ISSUES STATEMENT ON SENATE REORGANIZATION BILL

The following statement concerning the governmental reorganization bill, S. 3331, as reported to the Senate, was issued by Secretary Wallace on February 16:

"The governmental reorganization bill as it stands in S. 3331 as reported is, in my opinion, a long step forward toward making democracy an efficient agency for the general welfare. I hope that all those who have been especially concerned about agriculture and conservation in governmental reorganization will give it their wholehearted and vigorous support.

"Under the bill as reported to the Senate there is no implication requiring or inducing any further consideration of the transfer of any agricultural functions from the Department of Agriculture to any other department. In the term 'agricultural' I would include among others the functions of the Forest Service, the Bureau of Biological Survey, and the Soil Conservation Service.

"Furthermore, with uncertainties cleared away, I am sure we can make rapid progress in coordinating related functions in different departments. As I see it, this interdepartmental coordination has two aspects.

"One has to do with planning. Fortunately, the reorganization bill provides for an over-all planning agency which would be directly responsible to the President and which would be so manned and so physically located as to be no more under the dominance of one department than another. It is my belief that through this agency the President would be enabled to coordinate the planning functions of other departments and agencies in a harmonious manner with the agricultural, conservational, and land-use planning work in the Department of Agriculture. Similarly, planning in connection with any non-agricultural functions which would continue to exist in the Department of Agriculture would, through this central set-up, be coordinated harmoniously with the basic planning work of related functions existing in other departments.

"Another phase of interdepartmental coordination has to do with administration procedures, and current policies. The Farm Credit Administration and the Department of Agriculture some months ago established a permanent interdepartmental committee to coordinate programs and policies as they affect these two agencies working for rural welfare. The committee is only started but already it promises real benefits. I see no reason why a similar method could not be used in coordinating the agricultural, conservational, and land-use activities of any other department with those of Agriculture, or of coordinating the non-agricultural activities of this department with related work in other departments.

"However the government is organized, there will be need for cooperation and coordination. The problems with which government deals are too complex and inter-related to forego such cooperation and coordination. I know that the officials of this department will be glad to see removed the uncertainties which unquestionably have been a handicap to full concentration of energies on their tasks.

"It seems to me that the present status of the governmental reorganization bill and its likelihood of passage should be welcomed by all sincere friends of agriculture, conservation, and the general welfare." - Department of Agriculture Press Release

WATERSHED MANAGEMENT - MORE THAN MERE PROTECTION?

By Chas. A. Connaughton, Rocky Mountain Forest and Range Expt. Sta.

The publicity given to droughts, floods, and erosion in the last few years has created a water and soil conscious public. Many formerly disinterested laymen are thinking and looking at water and soil problems with new and fresh viewpoints and demanding answers to questions that can, and often do, prove embarrassing to administrators of public lands. Among the questions asked is - What is watershed management? - and, at the risk of appearing elemental to some, at least a partial answer is given here.

Watershed management is the practice of handling the natural resources of a drainage basin to produce maximum yields of usable water. Erosion control and prevention, flood control, streamflow regulation and stabilization, and other similar activities are included in watershed management although each one is only a phase of the broad subject.

Too many people unfortunately have the mistaken idea that watershed management and protection are synonymous. Actually watershed protection is only one phase of management just as protection of the forest from fire, insects, disease, and other destructive forces is only one phase of producing continuous, profitable timber crops through forest management. Control of an eroding gully is similar to control of a small forest fire--both are essential parts of management but obviously neither is management in its entirety. Protection comes with management but management does not result from mere protection.

Watershed management embraces restorative, protective, and improvement practices. The restorative aspects include recognition of land misuse and watershed deterioration; removal or correction of the factors contributing to misuse; and the reestablishment of favorable conditions by either natural or artificial methods. The latter methods include both revegetation and engineering structures. The protective aspects are largely the maintenance of acceptable conditions where these already exist. The improvement aspects include those practices by which usable yields of water actually are increased by resource management.

Of all the phases of watershed management, watershed improvement is the most important and yet has received the least attention. Perhaps this is to be expected because only in a few instances has watershed management research progressed far enough to indicate how timber marking rules or grazing methods might possibly be modified to improve water yields. But where water is scarce and valuable, watershed management sooner or later must mean that timber and forage production will be subordinate to water production and, consequently, timber and forage must be harvested in such a way that usable streamflow will be increased.

Complications in the application of watershed management are bound to arise because details pertinent to one watershed may not apply in another. For example, where ample natural or artificial storage is available, the objective may be to so manage the vegetation of the watershed that run-off will be the greatest possible without inducing erosion or floods. On other watersheds where storage is not available natural streamflow regulation must be accomplished by encouraging maximum infiltration of water into the soil, the soil then acting as the storage reservoir. Again, where the major share of the precipitation falls as rain, one system of watershed management may be dictated whereas, if snow provides most of the precipitation, other methods may be more desirable.

Watershed management, therefore, can and must go further than mere coordination of forest and range management. Although good forest management for timber production and good range management for forage production will generally result in protection of watershed values, it does not necessarily follow that the coordination of timber management and range management alone will constitute watershed management. Watershed management--that is, the production of maximum yields of usable water--especially on watersheds where water yield is more important than the production of timber or forage, may require changes in what ordinarily would be good forest and range utilization simply to increase water yield. As always, multiple use will prevail, but land management primarily for water production and stabilized streamflow is on the way and, unless the public agencies responsible for land management accept the full measure of their responsibilities on important water yielding areas, there is little doubt that before long the public will insist on attention being given to this matter.

JOHN MUIR

By Dorothy Parker Rowe, Washington

(Editor's Note: This year, 1938, is the centenary of the great American conservationist, John Muir. Because of Muir's important part in arousing public opinion which led to the establishment of the Forest Service, the following story will be of interest, and it may be helpful to Forest officers who are called upon to speak at meetings or otherwise contribute to observance of the centenary.)

Because of its well-known thrift, the Scotch race has long been the butt of many a jibe and jest, but it is in a large measure to the efforts of a Scotchman to bring about a more thrifty concern for our natural resources that we owe our present great system of National Forests.

Behind every worth-while project is some one with an idea. Some one in advance of his time, perhaps. Some one with great foresight. And one of the great leaders behind the forest conservation movement was John Muir.

Born on April 21, one hundred years ago, at Dunbar, Scotland, of a large family, this frail lad was destined to become one of the great American conservationists. He was not born with the symbolic silver spoon in his mouth - far from it. It may well be imagined that at an early age he was taught to repeat the maxim: Waste not; want not. Without John Muir's great vision and forethought much of the forest wealth of our western mountains might have been destroyed.

If John Muir's father had not decided to come to America when the lad was 11, it is doubtful if we would have our National Forests and Parks in their present state of development. But the family did come and settled near Portage, Wisconsin.

As a boy he was taught Latin and French in addition to the three R's. However, he once said that as far as arithmetic was concerned, he didn't know what it was all about until he reached the age or 15 or 16. Then he eagerly studied textbooks and, by himself, mastered algebra, geometry, and trigonometry. As a small boy he received many floggings, and his strict father required him to memorize long passages from the Bible. It was his father who told him: "The Bible is the only book human beings can possibly require throughout all the journey from earth to heaven."

John, not to be put off thus easily, went so far as to suggest to his father that scientific books, too, were valuable. Daniel Muir pooh-poohed this idea. Whereupon the boy said: "You, yourself, require spectacles. If no one knew the science of optics, you couldn't read your Bible."

The boy was an inveterate reader. However, the son of a homesteader in a frontier wilderness doesn't have a great deal of leisure. John was required to spend long hours clearing land, splitting rails, sowing crops, and swinging a scythe. When night came he was tired.

It was a rule of the household that the children go to bed immediately after family worship, which was about 8 o'clock in winter. However, if John was lucky he managed to squeeze in five minutes' reading time by the light of a candle in the kitchen. And if he was able to read for ten minutes before his father noticed and ordered him to bed, the boy considered himself fortunate, indeed.

Finally, he was taken to task and commanded to retire promptly at 8 o'clock. "However," his father added, "you can get up as early as you like in the morning," little thinking that he would be taken at his word.

Thereafter, the boy began rising at 1 o'clock in the morning. It was too cold that winter, with the temperature below zero, to enjoy reading at such an early hour, and John knew his father would object to a fire, so the boy hit upon going to the cellar where he worked on a self-setting sawmill. He had few tools and no saw. However, he succeeded in making a fine-tooth saw out of a strip of steel from an old-fashioned corset, that cut the hardest wood smoothly.

It was at this time also that John contrived an "early-rising machine" that later attracted considerable attention at the Wisconsin State Fair and, moreover, gave him his first big opportunity to acquire a liberal education and sympathetic friends.

During those early morning sessions in the cellar he also invented a homemade thermometer, a barometer, and an automatic horse feeder. The early-rising machine was a device for tipping his bed up on end, -- which must have been a rather rude awakening to say the least. He also invented a clock with attached mechanism to light a lamp and kindle a fire.

Early in his 20's John wished to decide on some trade for the purpose of making a living. His mother wanted him to be a minister, his sisters, a great inventor, and he himself often thought he should like to be a physician. However, there was no way of acquiring an education, due to lack of finances, except by working for awhile.

He says of himself that he was extremely shy. Yet this red-headed boy was "smart as a whip" and had a keen sense of humor. He finally determined to enter a machine shop. The neighbors called him a genius and one of them suggested he take some of his inventions to the State Fair at Madison in order to attract attention, and get on in the world. Accordingly, he went to Madison, Wisconsin, in 1860. There he met the Carr family who took a decided interest in him and became lifelong friends. Dr. Carr was a chemistry professor at the State University. In addition to winning prizes, young Muir's inventions opened the way for his entrance at the University of Wisconsin where he eked out a living on ten cents a day. Although he spent four years there, he chose to study subjects that interested him rather than taking a prescribed course leading to a degree. During his vacations he made exploratory forest tours into neighboring States, and traveling by way of the Great Lakes he even got as far as Canada.

Upon leaving the University he went to work in a machine shop in Indianapolis where he was promised a partnership. However, shortly thereafter a steel file pierced his right eye and he was threatened with blindness. From then on he devoted his life to "storing his mind with the Lord's beauty."

Following a visit at home he went on a thousand-mile walking trip to the Gulf of Mexico. Utterly penniless, he slept in the open, often in cemeteries. When he contracted malaria a kind-hearted family in Florida nursed him to health and he continued on his wanderings, going to Cuba and from there to New York.

On his tours he kept detailed accounts of everything he saw, which later served as the basis for valuable articles written for the New York Tribune, Century Magazine, Harpers Weekly, etc., urging forest conservation.

At 30 he went to the Yosemite Valley where he spent six years. Lured by his incomparable descriptions of California's mountains, the tide of tourist travel began to pour westward to the Sierra. He thereupon launched a great crusade to save the forests, for the scenes of destruction that met his eyes made him sick at heart: 3,000-year-old sequoias were being dynamited to make pasture for sheep; stockmen were overcrowding the ranges, and destructive lumbering and mining operations were laying waste large areas.

From the Yosemite he traveled to Nevada, Utah, the Pacific Northwest, and Alaska, and later to Japan, India, Egypt, Australia, and New Zealand. At the age of 42 he married Louie Wanda Strentzel, a charming young woman interested in horticulture, whom he had previously met at the Carr home. They were ideally happy. Following their marriage they lived on a ranch in the foothills near San Francisco Bay. For ten years Muir worked the ranch, successfully enough to provide a competence for his wife and two daughters born of the union. Then he sold part of the ranch, leased the rest, and devoted the remainder of his life to travel and study. A companion on some of his travels was Charles S. Sargent, noted authority on trees.

At 51 John Muir had come into the public eye. Robert Underwood Johnson, an editor of the Century Magazine, camping out with the naturalist, visited devastated areas where herds of sheep were permitted to overgraze. Together they began a campaign which resulted in the establishment of Yosemite National Park.

In 1896, a Federal Commission was appointed, as Muir had advocated for years, to investigate waste and fraud in the forests and recommend measures of national conservation.

Two important articles on the forest reserves by John Muir, published by Harpers and The Atlantic in 1897, called attention to the widespread waste of forest resources and the need for proper management of the forest reserves. They aroused a national clamor for forest conservation.

President Cleveland in 1897, set aside 25,000,000 acres of forest resources and William McKinley created 7,000,000 acres of forest reserves. In 1903 Theodore Roosevelt camped in the Sierra for three days with John Muir. When he returned to Washington he inaugurated an aggressive conservation policy. During his term of office he added to the Federal forest reserves 148,000,000 acres and created five national parks and sixteen national monuments. In 1905 the founding of the United States Forest Service meant the realization of much that John Muir advocated.

Many honors were offered Muir but he never sought fame nor wealth. He was offered the chair of science at Harvard and was given his choice of several departments at Massachusetts Institute of Technology but he refused them. He was beloved by many friends including Emerson, LeConte, Agassiz, Asa Gray and other great scientists.

On Christmas Eve, 1914, Muir set out on his eternal journey after seventy-six years spent on this earth, during which he had rendered invaluable service to America by contributing perhaps more than any other man toward turning the tide of public opinion to the ideal of conservation and wise use of our forests.

CCC ANNIVERSARY - A PR OPPORTUNITY

By Stephen C. Manning, Jr., Washington

The Fifth Anniversary of the CCC, for the observance of which Director Robert Fechner has designated the week of March 31 - April 5, presents a fine opportunity for the Forest Service to accomplish a valuable public relations job.

Official attitude toward the celebration is that it should be "of, by, and for" the camps themselves. Comparatively little in the way of national observance of the Anniversary will originate in Washington other than the Director's dinner on April 5. For the past several years the custom has grown among the camps to hold "Open House" during the Anniversary period, and to invite as guests all of the countryside, from the kiddies on up to the Mayor and the City Fathers.

This idea seems to have originated spontaneously back in 1934 at the first "birthday" of the Corps, and its growth is a natural one. Result: a CCC Open House is a wholehearted, jovial affair instead of strained, official, and would-be formal.

Mr. Fechner has said he was "heartily in favor of the 'open house' commemoration exercises, and that letters and reports reaching this office indicate the holding of these anniversary celebrations has aided in improving camp morale and in strengthening the good relationships that normally exist between the camps and adjacent communities. They have also served to acquaint the press and the public with the work which the CCC is accomplishing and the fine things which the CCC is doing for the boys in the way of improving their employability, physical condition, and morale." The Director also expressed his hope that Army and technical service officials would cooperate in arranging open house celebrations with the aim of acquainting visitors with camp life and the work projects.

Suggestions for events to be held during the Anniversary Week include the preparation by the technical personnel of diagrams, charts, or small models to show types of work projects and accomplishments, the staging of a dance, entertainment, boxing match, barbecue or supper, the use of enrollees as guides both for the camps and on any visits to the work projects. All activities within the camps should obviously be handled by the Camp Commanders with the active cooperation of the Using Agencies personnel.

The work relief provided the enrollee, and at the same time, the valuable conservation work that the enrollee has accomplished are the fundamental jobs for which the CCC was created. But at the present time, the two points most important to get across to the public are these:

(1) The CCC is teaching the average enrollee how to work, and is giving him actual experience in various types of work and with certain equipment and training which will enable him to get a job when his tour of duty with the Corps is done.

(2) There is a world of needed conservation work yet to be tackled by the CCC. As much as the Corps has accomplished, it still has more to do in the future. The accomplishment up to date has shown how valuable, how important, the CCC work is to the community, to the social and economic pattern of the area surrounding the camp. To continue this work along planned lines, based on the experience of the past few years, is the duty of the technical men guiding the work projects of the Corps.

In educating the public along these lines, special stress should be given to the Job Training program being carried on in camp. The local press should be informed of the number of men engaged on this program and the results obtained. It may be that former CCC men now holding good outside jobs can be contacted and asked to come to the camp for a day. There is a lot of "human interest" -- which is what the press (and the public) always cries for -- in the story of how the CCC is aiding enrollees to get a real start in life.

Getting across the story of the work yet to be done, depends, of course, on local conditions surrounding a camp, and upon the type of work the camp is doing. Forest Service and State officers should have no difficulty in linking the work of a National or State forest camp with the work program planned for the forest or district or State, and in getting across that idea to the folks who come to visit the camp during the Anniversary Open House period. Forest Supervisors, State Foresters, and others will have a slight edge on the individual camps for they may be able to arrange tours covering several camps within a certain area which might give a very comprehensive idea of CCC work. A tour of this sort might be carried out under the sponsorship of local or State agencies such as a State Forestry or conservation commission, chamber of commerce, American Legion Post, farm bureau, forestry or park association, or the like. If tours are planned, efforts should be made to contact other Using Agencies in advance in order to coordinate efforts.

The idea of limiting CCC (and forestry) publicity to Open House celebrations during the CCC Anniversary Week is right in line with the democratic "grass roots" point of view of the Forest Service in its public-relations outlook. The simple truth is that all the advertising, publicity, hoopla or what you will, is of no avail if the article you are trying to "sell" is a phoney. The public quickly finds that out. But the CCC has "sold" itself -- because of its benefits to the people right in the locality of the average camp. It is entirely fitting, therefore, that no big ballyhoo be sounded from Washington, but that the CCC be allowed to speak for itself from its own doorstep. It is up to all of us to help tell that message clearly and distinctly, and at the same time to get across the Forest Service point of view.

HELP WANTED

By E. N. Munns, Washington

WANTED: Reams of specific facts about forest and snow cover such as effect of forest on distribution and pack of snow; influence of forest on snow melt or depth of soil-freezing; snow drifts in the forests as contrast with the open; etc. Reply direct or insert answer in any news letter available. Regional papers please copy.

The above want-ad is most real and is addressed to all members of the Forest Service. We do need the data. Information as to the effect of forests on snow and on ground freezing is as scarce as hen's teeth. There are lots of generalities as to the beauties of trees in winter, but few facts as to how much water is held in the tree crown. There are plenty of statements about forests affecting snow drifting and snow melting, but few of these carry specific facts. Authors write voluminous papers but carefully (?) omit specific references to the time and place, to the amount, age, density, or character of the forest, to the size of the trees or of openings, to the dates or time intervals when snow really left the ground, on the depth to which the ground actually was frozen in forest and in open, etc., etc., etc.

We need facts. Foresters are getting closer and closer to the muzzles of the guns of our opponents, and occasionally a shot or two from a well trained weapon scores a direct hit. Engineers and others are examining our statements carefully and in great detail and are raising questions about forest influences that are hard to answer. Engineers can be satisfied and answered if we have facts, but facts about snow melt, depth of cover, etc., can't be had during normal rocking-chair field seasons, so help is wanted.

Many kinds of facts are needed. Was the snow cover uniform under the forest or in the open? How deep was the snow? Where did the drifts occur? Is there any difference between drifts in tall timber or in short; or in pine, spruce or hardwoods? How late and where did the snow last? Under what forest or open conditions did it last longer? In the forest, does the snow melt gradually or suddenly? Is rapid melt caused by temperature or by rain? Was the snow water more rapidly absorbed in the open than in the forest? Was the forest soil frozen deeper than the open soil? One could enumerate many other questions on which information - specific as to time, place, and condition - is needed, but these samples will do. An answer to any one of them is just as valuable as an answer to any other. What have you got?

Write up such facts. Put them in your local regional news letters or the Service Bulletin. If unsuited for publication, let's have them anyway. Write a book if you desire, or just send in your observations on scratch paper, in pencil, in a foreign language (Oriental languages not acceptable), any way at all. All methods are acceptable, all are wanted.

Who should reply? Observations from anybody - from the ranger station janitor to the Acting Forester, from the CAF-1 to the P-14, from the sign painter to the statistician, from Alabama to Alaska - are most welcome. As a matter of fact, more replies are expected from the last folks down the line than from the Brass Hats, but the wearer of the shiniest head gear is not barred if he has a fact to contribute.

VOLUME TABLES BASED ON A FIXED TOP

By James W. Girard, Washington

In the Daily Bulletin of the Southwestern Region, dated January 13, Quincy Randles has a statement entitled, "Douglas Fir Volume Table on the Lincoln". Randles stated that the accuracy of the Douglas fir volume table prepared on the Lincoln National Forest had been questioned and a check of this species on that Forest was made in 1937. The volume table was based on a fixed top diameter of 7 inches. The check that was made showed that the volume table scale was within .15 of 1 percent of actual scale. The conclusion was that the table was reliable for use provided that proper deductions were made for defects, breakage, and difference in volume between the 7-inch top and the utilized top.

I am wondering why the table was questioned. Was it questioned because actual cut had been overrunning the estimate? The check of the accuracy of the table referred to was, I presume, based on measurement of cut trees. This is a check, of course, of the accuracy of the table so far as construction is concerned, but it is no check at all of the accuracy of application. The only reliable procedure to follow in checking the results of the application of a volume table is to estimate standing trees, then cut these trees and thus determine the error of application. After trees are cut it is an easy matter to measure these trees to the exact fixed top that was used in constructing the table, but this is no indication whatever of the error of application.

Don Bruce was able to prove in 1912 and 1913 that volume tables which were based on a fixed top were the most accurate tables that could be made. Field measurements on several logging operations showed that his conclusions were correct. This, however, was no check of the reliability of application. The first thorough check that was ever made, so far as I know, of the errors of application of volume tables based on a fixed top, was made after the National Forest Survey started in 1930. These checks showed for the average cruiser that the use of volume tables based on a fixed top of 5 to 8 inches resulted in greater errors than any other type of table. This was proved in several cases by using two types of table - one based on a fixed top and the other based on a merchantable, or utilizable top. Standing sample trees were estimated by the use of both tables, then these trees were cut and measured. All these tests proved conclusively that much larger errors were made when tables that were based on a fixed top were used than when tables based on a merchantable top were used.

There are only two ways to get reliable results from volume tables made to a fixed top. First, if such tables are based on total height good results can be obtained by their application if a sufficient number of sample trees are carefully measured on the tract to be cruised to give a strong height curve on diameter and, in addition to this, if a sufficient number of trees are measured to show the difference in volume between the fixed top and the utilizable top by diameter classes. Second, if a sufficient number of trees are measured to show the length from the tip to the fixed point upon which the table is based, by diameter classes, to give a strong curve of this length on diameter, and if additional measurements are made to show the difference in volume between the fixed top and the utilizable top by diameter classes, tables based on d.b.h. and height to a fixed top can be satisfactorily used.

In this case the cruiser would check his judgment with reference to the fixed top by measuring the total height of sample trees and then referring to his curve, which would show the number of feet that he would have to deduct to reach the fixed top. Many field tests have proved that the two methods referred to will give the most reliable results when using tables that are based on a fixed top. The reason that estimates have overcut from 15 to 40 percent in some cases is largely because the cruiser making the estimate did not go to the exact top upon which the table was based, but in many cases - and particularly in the tall timber - it is not practical to determine the fixed top with a reasonable degree of accuracy except by use of one of the methods given above.

THE CCC AND FLOOD CONTROL

(Extract from address by Robert Fechner, Director of the Civilian Conservation Corps, before the Rivers and Harbors Congress, January 20, 1938)

"Regardless of the fine conservation work which the young men and war veterans of the Corps have accomplished, a huge amount of conservation work remains to be done. Millions of acres of waste lands are still to be reforested. The erosion control and national flood control programs are well started, but a tremendous amount of work remains to be done. Likewise, in other conservation fields, there are unlimited opportunities for the use of CCC enrollees in building up and preserving the nation, not only for the present but for future generations.

"There is a splendid field and a proper one for the Civilian Conservation Corps to engage in those types of upstream engineering which are a necessary part of the national problem of flood control. Small gullies in denuded mountains, bare, treeless areas that need again a forest cover, the building of small ponds and reservoirs near the heads of the smaller tributaries of our great rivers -- along with continued forest protection activities -- would seem to me to be proper work for the Corps. This is especially true when one considers the type of workers in the Corps -- young men full of interest and enthusiasm for the outdoors who can be well taken care of in camps located in isolated mountain areas, individual projects small in themselves but extremely important as a part of the whole problem. Such types of work cannot be contracted for and moreover would have little or no appeal to older, more seasoned workers.

"Flood control, we all know, is a long-range problem of public necessity. Congress in the Flood Control Act of 1936 has provided for measures of soil erosion prevention and reforestation to supplement and complete the work of the Army Engineers. These "upstream engineering" measures, as they may be called, afford types of work, and under conditions, for which the CCC by its experience is admirably fitted. The Corps stands ready not only to help save lives in time of flood disasters but to use its man-power to help curb their occurrences."

A LETTER OF CRITICISM

"Since my enlightening visit with you last Monday, at which time we discussed the problems of the Arizona cattlemen, I have been formulating in my mind ways and means whereby the Forest Service and the cattlemen under the jurisdiction of the Forest can place their relations on a more friendly and cooperative plane.

"The Forest Service as a branch of the United States government and as a servant of the people is supposed to administer in an impartial way those duties required of it. As a servant it is supposed to listen to the complaints of those citizens under its jurisdiction, and after weighing the facts submitted by those citizens, both pro and con, the Service is supposed to recommend additions to existing laws or enact new ones, if it is deemed advisable.

"I personally believe the Forest Service is sincere in its efforts towards the betterment of the people it serves and in the performance of its duties, but some place in the jumble of bureaucratic red tape or the tremendous size of the organization that sincerity of effort is lost with the result that cooperation between the Forest Service and the people does not, except in scattered cases, exist.

"The Forest Service without the cooperation of the cattlemen will never entirely accomplish its program, and, on the other hand, the cattlemen will never feel secure nor will they be happy in any sense of the word until they fully realize that the Forest Service is doing all in its power to help and is not sucking their life blood.

"I can safely say that conditions, instead of improving, are growing rapidly worse, not in actual fact but in the minds of prejudiced cattlemen who believe they are being wrongly treated. These men are carrying on an undeclared war against the Forest Service, and as their forces become more organized they become braver. This undeclared war is not one which can be 'Humanized' because it consists entirely of slipping one over on the Forest. It doesn't take an expert to run twenty head over his permit when the ranger in charge is as ignorant of local conditions, knowledge of cattle and the work connected with them, and the handling of men as are some of the men I have in mind. Before this undeclared war is declared it seems only logical that the Forest Service employ some method which will prevent a near national catastrophe and which will show the cattlemen that the warpath is not the only means to an end. In other words, the Forest Service must, before it is too late, cultivate the friendship of the cattlemen, who are eventually going to blow up, and develop a harmonious relationship.

"The question is how is this harmonious relationship to be brought about? It can't be done with force; it can't be done from a desk in Washington; it can't be done through the press or over the radio; and it can't be done satisfactorily through the mail, although this is one way to at least start. By all rights it should be done by individual men who understand the policies of the Forest Service, but who can at the same time explain these policies to small gatherings of cattlemen in a manner which those men will understand. Men would have to be chosen who had had the benefits of education and who could mix with cattlemen in an impersonal way; they would have to be able to ride through the 'non-road' country and have the ability and understanding of cattle conditions to investigate the claims of cattlemen, and they would have to be men. Nowhere is a man appreciated more than among men.

"You realize, I feel sure, that in most cases you are dealing with men of little education. To them Washington is a city where laws are 'produced' with no rhyme or reason, and because of their ignorance they are unable to understand those laws which concern them. If their rangers would come down off their high horses and leave their stiff shirts behind and take an intelligent interest in the problems of the men they serve the situation would be different today. This, of course, is not done with the result that the cattlemen figure that if the lowly ranger is such a stand-offish person the whole Forest Service is the same. Can you blame them for despising the Service?

"Many of these men you have to deal with have never been out of their own county. Their dealings with strange people have been limited and when a perfect stranger, a ranger at that, tries to tell them in a way they have never known how to do this and that you can't expect their reactions to be very favorable especially when it has to do with their very life blood. The crime in their minds becomes doubly worse when they realize that the ranger knows next to nothing and has gained his knowledge from books and not actual experience. Once the cattlemen understand the problems confronting the Forest Service they will do all in their power to understand their rangers, and if the rangers in turn will admit they don't know everything and will get the lead out of their pants the results will be surprising.

"The grazing country today would be in a fine fix had it not been for the Forest Service. You have done a remarkable work against terrific odds and I congratulate you on it. The cattlemen can not operate without your assistance even though many think the opposite, and though many speak against the Service they know full well what their condition would be without your guidance. There is no limit to the good work you can do, but before you can go on there is that important point of friendliness. Your task will be much lighter when you do cultivate this. The cattlemen have concessions to make and so does the Forest Service."

YE EDITOR DISCOVERS

Mr. Silcox has formally recognized the Forest Service Section of the Agriculture Branch of Local No. 2, N. F. F. E., as an agency to represent the interests of Forest Service employees in the District of Columbia in Bureau and Department administration, a memorandum of understanding having been signed by him recently. The memorandum specifies that the Chief and subordinate Bureau executives will confer with the employees' elected Employee Representation Committee on request on matters relating to employee interests and will seek to work out with it "mutually satisfactory solutions of employee problems."

In investigating on behalf of employees alleged grounds of complaint or conditions detrimental to working efficiency or employee welfare, the committee is to receive the cooperation of executives concerned and will be furnished any information requested unless its withholding is specifically directed by the Chief on grounds of a public interest involved.

In a memorandum to all employees in Washington and R-7 offices, Mr. Silcox said:

"This memorandum is a source of satisfaction to me, because it indicates that you realize the need for more human relations between subordinate and superior in order to satisfactorily solve problems which are common both to the individual and the organization. It represents much effort upon the part of many of you and is a worthy instrument. Let us all do our utmost to derive the most good from this agreement and to make it a means toward constructive cooperation between us. Much good will come of this if each person will give it hearty support."

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Dr. Heske, whom many members of the Forest Service met when he visited here from Germany a few years ago, has completed his book, "GERMAN FORESTRY", which will appear under sponsorship of the Oberlaender Trust, and is now ready for distribution.

This volume is a description of the development and present status of sustained-yield forestry in Germany, together with an account of German forest policies. It is written primarily for the purpose of interpreting the facts and problems of German forestry for the benefit of American readers. It is the only comprehensive work of its kind in English. It contains approximately 350 pages.

Part I deals with such matters as: land use in Germany; development of sustained-yield management; extent, distribution, and composition of forests; forest ownership; management of State, communal, and private forests; forest production and wood consumption; problems of meeting timber requirements; employment in forestry; indirect benefits of the forests.

Part II treats of German forest policies, including government forestry agencies; forest research and education; labor legislation; tenure of forest property; forest rights; public restrictions on forest management; forestry legislation; forest taxation; forest fire insurance; forest credits; the national afforestation program.

This book should make a valuable adjunct to Region and Station libraries. It is published by the Yale University Press, New Haven, Connecticut. The price is $3.

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There were 102,716 persons working under the jurisdiction of the Forest Service during the month of January, classified as follows:

Classification	Number	Appropriation
CCC Enrollees	80,079*	Paid from CCC Funds
CCC Supervisory & Facilitating Personnel	11,325	Do
ERA Certified	6,812	Paid from 1937 ERA Funds
ERA Supervisory	796**	Paid from 1936 and 1937 ERA Funds
Forest Community Projects	4	Paid from Farm Security Adm. Funds
Emergency Fire Guards	21	Paid from other than Emergency Funds
Regular Appointed Personnel	3,679	Regular Appropriations
	102,716	

* Excludes 49,164 enrollees retained by the Army for its overhead, conditioning, bad weather, etc.

** Includes 763 Administrative employees and 33 exemptees.

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The week beginning March 20, 1938, has been designated by President Roosevelt as National Wildlife Week.

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In the March issue of AMERICAN FORESTS, Secretary Ickes answers the editorial "Let Mr. Ickes Answer", which appeared in the January issue of that magazine. The editorial is also reprinted "so that readers may form their own judgment as to the adequacy of the Secretary's answer." Editorial comment on Ickes' answer is also made in the same issue.

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E. C. M. Richards, in charge of the Forestry Relations Department of the Tennessee Valley Authority, has resigned. He is returning to his home in Pennsylvania, where he will engage in private consulting work.

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At its meeting on March 3, the National Forest Reservation Commission approved purchases totaling 104,778 acres in 32 units, at an estimated cost of $351,310. The Commission also approved the exchange with the State of Michigan of 17,799 acres in the Marquette National Forest for approximately equal acreage within State Forests. Enlargement of the Bates College Experimental Forest to approximately 9,500 acres and changing the name of this area to the Massabesic Experimental Forest were also approved by the Commission.

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On February 25, Acting Secretary M. L. Wilson, of the Department of Agriculture, designated Fred Morrell as personal representative of the Secretary on the CCC Council. Heretofore since the beginning in April 1933, the Chief Forester has been the Department's representative on the Director's Council.

Mr. Morrell will, therefore, hereafter be responsible directly to the Secretary for the initiation of such action in the Department and the participating Bureaus as is necessary to carry out policies and plans of the Advisory Council of the Corps and the instructions of the Director.

Under the Secretary's new instructions, the Chiefs of Bureaus concerned with the work of the Corps will continue to be responsible for the functioning of projects in such camps as are assigned to them and for expenditure of such CCC funds as the Secretary's representative may allot to such Bureaus.

The CCC Council as now set up consists of Robert Fechner, Director; Brig. General George P. Tyner, War Department; Conrad L. Wirth, Department of the Interior; Fred Morrell, Department of Agriculture; W. Frank Persons, Department of Labor, and C. W. Bailey, Veterans Administration.

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An automobile accident involving three Forest Service men occurred February 12 a short distance outside London, Kentucky. The car in which Roy Headley of the Washington Office, Donald Beck of Region 7, and Supervisor Rowland Hemingway of the Cumberland Forest were riding was hit head-on by a car from Michigan. Mr. Hemingway, who was driving the car, was the most severely injured, sustaining a broken knee-cap and other minor injuries. Mr. Headley, although not seriously hurt, received very painful bruises and a badly injured ankle, there being a small fracture of one foot bone. Mr. Beck was injured to a lesser degree, as he was in the back seat. They were all taken to the hospital at London, and the next day to the hospital at Winchester, Kentucky. Messrs. Headley and Beck returned to Washington on February 15, but Mr. Hemingway was unable to leave the hospital and it was understood at that time that he would have to remain there for five or six weeks.

Mr. Beck has fully recovered from the accident.

Mr. Headley is doing nicely but will be confined to his home for several weeks, as it was necessary to put his ankle in a cast.

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BEAVERS WAGING INCESSANT WAR

An interesting story of a friendly but openly declared war between a colony of beaver and Forest officials is told by Ranger Andrew McConkie of the Salmon Forest. The war has been waged at the Copper Creek Ranger Station and hostilities started last summer. The beavers have worked for the last three years to construct a dam and finally succeeded in covering about two acres of the Ranger Station pasture with water from Panther Creek.

Early last spring it was decided to remove the dam by means of a Diesel caterpillar tractor, so forthwith it was demolished and the water released. The beaver, however, were not so easily discouraged and every night they carefully rebuilt the dam after it was torn out each day. It was quite a feat for these industrious animals to construct the dam during the night, as it reached a distance of forty feet across the stream. As the game progressed the dam-building technique of the beavers improved. They carefully weighted the dam down with rocks weighing up to forty pounds and in one instance thoroughly tied the dam together with about eighty feet of emergency telephone wire.

In the meanwhile the beavers were developing a canal across the station pasture some 200 yards to a small patch of aspen. Evidently they had chosen the aspen as a promising commissary for winter use. The canal when finished was about four feet wide and was plastered with mud to make it easier to skid the logs.

From October 1 to 31, no one was at the Ranger Station and the dam was not disturbed. Having no repair work on hand the beaver had completed the canal and had harvested all of the aspen trees; and then to prove they were masters of the situation, they crossed the road and removed a number of shade trees in front of the station. The beaver are enjoying themselves this winter but conferences are being held among the Rangers as to ways and means of removing these industrious animals to happier hunting grounds in the spring. - R-4 Bulletin

RANGE PLANT HANDBOOK PRAISED

The following letter has been received by the Forest Service from J. Dewey Soper, Chief Federal Migratory Bird Officer, Prairie Provinces, Winnipeg, Manitoba, Canada:

"This is a remarkably fine work - everything in connection with it. I had no idea when placing a request for it that it was a work of this order. Of all the books on plant life I have ever seen nothing equals this one, and I have particularly in mind the manner in which it meets the requirements of the busy field man who is not a botanist. In this respect, especially, it satisfies a need in my own work, as a field zoologist, which somehow I had not hoped to realize.

"To say that I am positively delighted with this excellent publication is to put the matter mildly. I have shown it to several leading naturalists of this city who one and all have examined it with enthusiasm. Your Forest Service is to be congratulated in this exceptional result. Again I thank you for the generosity shown in providing this office with a copy."

ANOTHER QUESTION ST. PETER MIGHT ASK

Referring to "The Man St. Peter Liked" in the February 21 issue of the "Bulletin":

I wonder what will be a good alibi when St. Peter asks present day foresters about their planting record? If he goes further and compares their actual accomplishment with their potential, they will surely be "on the spot" and maybe a very hot one at that. - Shirley Buck, R-6.

FOREST SERVICE U S DEPARTMENT OF AGRICULTURE

SERVICE BULLETIN

CONTENTS CONFIDENTIAL

> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT xxx THE TIME HAS COME FOR A CHANGE AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY xxx TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES, WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER
>
> Theodore Roosevelt

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U. S. Department of Agriculture

Vol. XXII No. 7 Washington, D. C. April 4, 1938

PRESIDENT ROOSEVELT RECOMMENDS STUDY OF NATIONAL FOREST PROBLEM

To the Congress of the United States:

I feel impelled at this time to call to the attention of the Congress some aspects of our forest problem, and the need for a policy and plan of action with respect to it.

Forests are intimately tied into our whole social and economic life. They grow on more than one-third the land area of the continental United States. Wages from forest industries support five to six million people each year. Forests give us building materials and thousands of other things in everyday use. Forest lands furnish food and shelter for much of our remaining game, and healthful recreation for millions of our people. Forests help prevent erosion and floods. They conserve water and regulate its use for navigation, for power, for domestic use, and for irrigation. Woodlands occupy more acreage than any other crop on American farms, and help support 2½ million farm families.

Our forest problem is essentially one of land use. It is a part of the broad problem of modern agriculture that is common to every part of the country. Forest lands total some 615,000,000 acres.

One-hundred-and-twenty-odd million acres of these forest lands are rough and inaccessible, but they are valuable for the protection of our great watersheds. The greater proportion of these protection forests is in public ownership. Four hundred and ninety-five million acres of our forest lands can be classed as commercial. Both as to accessibility and quality the best four-fifths, or some 396,000,000 acres of these commercial forests, is in private ownership.

This privately owned forest land at present furnishes 96 percent of all our forest products. It represents 90 percent of the productive capacity of our forest soils. There is a continuing drain upon commercial forests in sawtimber sizes far beyond the annual growth. Forest operations in them have not been, and are not now, conducive to maximum regrowth. An alarming proportion of our cut-over forest lands is tax-delinquent. Through neglect, much of it is rapidly forming a new but almost worthless no man's land.

Most of the commercial forest lands are in private ownership. Most of them are now only partially productive, and most of them are still subject to abuse. This abuse threatens the general welfare.

I have thus presented to you the facts. They are simple facts; but they are of a character to cause alarm to the people of the United States and to you, their chosen Representatives.

The forest problem is therefore a matter of vital national concern, and some way must be found to make forest lands and forest resources contribute their full share to the social and economic structures of this country, and to the security and stability of all our people.

When in 1933 I asked the Congress to provide for the Civilian Conservation Corps, I was convinced that forest lands offered one source for worthwhile work, noncompetitive with industry, for large numbers of our unemployed. Events of the past 5 years have indicated that my earlier conviction was well founded. In rebuilding and managing these lands, and in the many uses of them and their resources, there exists a major opportunity for new employment and for increasing the national wealth.

Creation of the national-forest system, which now extends to 38 States, has been a definite step toward constructive solution of our forest problem. From national-forest lands comes domestic water for more than 6,000,000 people. Forage, occurring largely in combination with timber contributes stability to one-fourth the western range livestock industry. Through correlated and coordinated public management of timber and all other resources, these public properties already help support almost a million people and furnish healthful recreation to more than 30,000,000 each year. By means of exchanges and purchases, the Congress has for many years encouraged additions to this system. These measures should very definitely be continued as funds and facilities are available.

The Congress has also provided that the National Government shall cooperate with the various States in matters of fire protection on privately owned forest lands and farm woodlands. The States are in turn cooperating with private owners. Among other measures the Congress has also authorized an extensive program of forest research, which has been initiated and projected; Federal cooperation in building up a system of State forests; cooperative activities with farmers to integrate forest management with the general farm economy; the planting of trees in the Prairie-Plains States -- an activity which has heretofore been carried on as an emergency unemployment relief measure with outstanding success and material benefit; and, under the omnibus flood-control bill, measures to retard run-off and erosion on forested and other watersheds.

Progress has been made, and such measures as these should be continued. They are not adequate, however, to meet the present situation. We are still exploiting our forest lands. Forest communities are still being crippled; still being left desolate and forlorn. Watersheds are still being denuded. Fertile valleys and industrial cities below such watersheds still suffer from erosion and floods. We are still liquidating our forest capital; still cutting our accessible forests faster than they are being replaced.

Our forest budget still needs balancing. This is true in relation to future as well as present national needs. We need, and will continue to need, large quantities of wood for housing, for our railroads and our telephone and telegraph lines, for newsprint and other papers, for fiber containers, for furniture, and the like. Wood is rich in chemicals. It is the major source of cellulose products such as rayon, movie films, cellophanes, sugars of certain kinds, surgical absorbents, drugs, lacquers, phonograph records. Turpentines, rosins, acetone, acetic acid, and alcohols are derived from wood. Our forest budget should, therefore, be balanced in relation to present and future needs for such things as these. It should also be balanced in relation to the many public services that forests render, and to the need for stabilizing dependent industries and communities locally, regionally, and nationally.

I am informed, for example, that more than $100,000,000 has recently gone into development of additional forest industries in the southeastern section of our country. This means still more drain from southern forests. Without forestry measures that will insure timber cropping there, existing and planned forest enterprises must inevitably suffer. The Pacific Northwest contains the greatest reserves of virgin merchantable timber in the continental United States. During recent years many private forest lands have been given better fire protection there, and there are more young trees on the ground. But the cutting drain in our virgin Douglas-fir forests is about four times current growth, and unless existing practices are changed the old fir will be gone long before new growth is big enough for manufacture into lumber.

I recommend, therefore, study by a joint committee of the Congress of the forest-land problem of the United States. As a Nation we now have the accumulated experience of three centuries of use and abuse as guides in determining broad principles. The public has certain responsibilities and obligations with respect to private forest lands, but so also have private owners with respect to the broad public interests in those same lands. Particular consideration might therefore be given in these studies, which I hope will form the basis for essential legislation during the next session of Congress, to the situation with respect to private forest lands, and to consideration of such matters as:

1. The adequacy and effectiveness of present activities in protecting public and private forest lands from fire, insects, and diseases, and of cooperative efforts between the Federal Government and the States.

2. Other measures, Federal and State, which may be necessary and advisable to insure that timber cropping on privately owned forest lands may be conducted as continuous operations, with the productivity of the lands built up against future requirements.

3. The need for extension of Federal, State, and community ownership of forest lands, and of planned public management of them.

4. The need for such public regulatory controls as will adequately protect private as well as the broad public interests in all forest lands.

5. Methods and possibilities of employment in forestry work on private and public forest lands, and possibilities of liquidating such public expenditures as are or may be involved.

Facilities of those technical agencies that, in the executive branches of the Government, deal with the many phases of our forest problem will of course be available to such committee as the Congress may appoint. These technical agencies will be glad to assist the committee in assembling and interpreting facts, indicating what has been done, what still needs to be done, and in such other ways as the committee may desire.

I make this suggestion for immediate study of our forest problem by the Congress in the belief that definite action should be taken by the Congress in 1939. States, communities, and private capital can do much to help--but the fact remains that, with some outstanding exceptions, most of the States, communities, and private companies have, on the whole, accomplished little to retard or check the continuing process of using up our forest resources without replacement. This being so, it seems obviously necessary to fall back on the last defensive line--Federal leadership and Federal action. Millions of Americans are today conscious of the threat. Public opinion asks that steps be taken to remove it.

If the preliminary action is taken at this session of the Congress, I propose to address letters to the Governors of those States in which the amount of State and privately owned forest land is substantial, enclosing to them a copy of this message to the Congress and asking their full cooperation with the Congress and with the Executive Branch of the National Government.

FRANKLIN D. ROOSEVELT

OUR BEST BET IS -- "THAT 'G.P.' WAS!"

By Louis S. Murphy, Washington

Guthrie in concluding his item "On Our Word 'Ranger'" (Service Bulletin of January 10, 1938) asks "Does anyone know who was responsible for its adoption and first use in our present-day sense?" "So far as now known," he continues, "there were no federal forest rangers before 1891 when the Forest Reserves legislation was passed."

The writer happens to have fallen heir to a scrap book kept by the late Jeannie S. Peyton, our first "Law Compiler," while she was an employee (1876 to 1905) engaged in timber depredation prosecution and forest reserve work of the Interior Department. This scrap book contains all the material from 1872 on, relating to forests on the public domain and later the forest reserves, appearing in either the annual reports of the Secretary of the Interior or the Commissioner of the General Land Office. Indeed, the ghost writer of most of such material subsequent to 1877 was Miss Peyton herself. (The underscoring in the quotations which follow are Miss Peyton's or mine.)

A perusal of this scrap book shows the first appearance of the word "Ranger" to have occurred in the 1898 report of the Commissioner of the General Land Office (p. 91) as follows:

"INCREASED FOREST SERVICE UNDER THE NEW APPROPRIATIONS.

"Since the close of the fiscal year, of which the above is a summary of the work performed, the increased appropriations, which became available on the 1st of July, 1898, have admitted of a considerable expansion of the service, enabling this office to place a graded force of officers in control of the reserves. The reservations have been grouped into eleven districts, under as many forest superintendents, each of these officers having under his supervision and direction several forest supervisors in immediate charge of the respective reservations assigned them, each of whom has, in turn, under his personal direction, a number of forest rangers whose primary duty is to patrol the reserves, to prevent forest fires and trespasses from all sources, and to see to the proper cutting and removing of the timber designated by the supervisors in cases in which sales are ordered.

"For the first time the Government finds itself equipped with not only legislation to regulate the control of the reserves but the necessary machinery to put the legislation into effect; and the placing of this force in charge of the reservations will enable this office to overcome many of the difficulties heretofore encountered."

There is nothing here to identify "G.P." with the appearance of this new term where formerly the forest reserve force was referred to as consisting of "special forest agents and supervisors."

However, in the 1897 Report of the Secretary of the Interior (Cornelius N. Bliss) (p. 14) we find the following:

"It was my intention originally to establish a forest bureau in this Department, but the inadequacy of the appropriation for the work precluded my carrying into effect such plan. I have, however, taken such action as the circumstances permitted, and since July 1, 1897, have appointed special forest agents and supervisors to patrol the reserves and enforce the regulations. (And here we come onto the trail of "G.P.") Special Forest Agent Pinchot is making an examination of the entire forest system; ----"

From here the trail leads to the "Report on Examination of the Forest Reserves," by "G.P.", a report to the Secretary of the Interior, completed January 26, 1898 (Senate Document No. 189, 55th Cong. 2d. Sess. pp. 35-118) transmitted by the Secretary in response to a resolution of the Senate dated February 28, 1898. The part bearing on Guthrie's question reads as follows (p. 43 & fol.):

"FOREST SERVICE

"In accordance with my instructions, I have to recommend the following organization for a forest service to have charge of the reserves. It is based upon an annual expenditure of $70,000, of which the salary list is expected to consume somewhat more than one-half. The task before such an organization will be altogether lacking in precedents in this country, and the number of Americans sufficiently trained to occupy the more responsible positions is small. It seems wise, therefore, to begin on a comparatively restricted scale. I have to recommend that the officers referred to in the following paragraphs be assigned to a small number of reserves, as hereinafter specified (p. 46), since the distribution of an inefficient force over large areas must necessarily result in small profit to these areas, while forfeiting the valuable example which a few reserves well managed may afford:

"One chief forester. Duties * * * Three clerks in the office of the chief forester. Duties * * * One inspector of forests. Duties * * * Seven forest rangers. Duties * * * Three clerks, one in the office of each of three of the seven forest rangers. Duties * * * Twenty forest guards. Duties * * * One hundred and sixty fire watchers. Duties * * *

"Every forest officer, except the chief forester and the inspector should be required to provide his own residence in or near a reserve at a point suitable and convenient for the discharge of his duties, and to keep at his own expense two horses constantly available for forest work. His own field equipment, with the exception of a uniform hat to be furnished by the Department, should also be provided at his own expense. No charge for food and lodging should be allowed when traveling. A subsistence allowance in addition to actual and necessary traveling expenses should be paid as follows:

Chief forester	$3.00 per day
Inspector	3.00 " "
Forest ranger	2.00 " "
Forest guard	1.00 " "

* * * * * * * * *

COST

Annual salary list

1	Chief forester	3,000	
1	Forest inspector	2,500	
7	Forest rangers, at $1,800 each	12,600	
20	Forest guards, at $720 each	14,400	
100	Fire watchers, at $50 each	5,000	
60	Fire watchers, at $25 each	1,500	
1	Clerk	1,200	
1	Clerk	1,000	
4	Clerks, at $720 each	2,880	
	Total		$44,080

Miscellaneous expenses

Traveling expenses and allowances	10,000	
Trails, bridges and cabins	3,000	
Fire fund	5,000	
Contingent fund	7,920	
Total		25,920
Grand total		$70,000"

It is interesting to note further that perhaps the terms "national forests" and "forest service" (see above quotation) also had their genesis in this same report. For the most part "G.P." used the official designation of that day, namely "forest reserves" or "forest reservations," but in one place he departs therefrom (P.39) as follows:

"PUBLIC OPINION

"Perhaps the most striking fact developed during my investigations in the field season just closed is the profound change now taking place in public opinion with regard to forest preservation in general and to the reserves in particular. The outburst of public protest which followed the establishment of thirteen reserves by President Cleveland has spent its force, and a widespread recognition of the value of the reserves to the communities about them is taking its place. The largest factor in this change has been the diffusion of knowledge regarding the rules and regulations issued by the Department for the government of the reserves. These rules, framed to bring about the use of the reserves, and liberal to a marked degree, are gradually becoming known. During four months in the Northwest I have met but one man to whom a knowledge of their provisions did not furnish sufficient reason for hearty approval of the reservation policy. But great numbers of those most interested are as yet incompletely informed, and a wider publication of the forest policy of the Government, perhaps through the post-offices situated in or near the reserves, would go very far to establish the good opinion gradually forming in the public mind, and to secure the nationa forests against future attacks from any source."

In one other place(p.36) he refers to "national timber lands," but here he may have intended the term to include the unreserved public domain timber lands as well as the reserves.

LEST WE FORGET

By William R. Barbour, R. 8

While we've busied ourselves talking about how new forestry is in America, time has crept up on us. Most of our National Forests have passed the third of a century mark; even the "new" Forests in the east, acquired by purchase under the Weeks Law, are (many of them) twenty six years old.

The time is coming all too soon when the old timers, the Supervisors and Rangers who knew the Forests in their infancy, will have passed to their reward. With them will die a wealth of reminiscence, of colorful memories of those early days.

I want to make a suggestion. Let each National Forest prepare a brief history, dates, personnel, outstanding events, etc, by digging into the records and contacting the old timers for "off the record" data. What, for example, was the succession of Supervisors and when did they reign? Who were their assistants? When and where were built the first lookout tower, the first trail, the first road? What big fires has the Forest had? Etc, etc. Twenty five years from now, or fifty, or one hundred (for our Forests will outlive many generations of men) such data, unless preserved now, will be irretrievably lost.

Have this history kept in the current files and moved up each year, and let a new chapter -- only the most outstanding data and events -- be added annually.

Nearly all the Forests can, from their own files or from private albums, get many early photographs of personnel, structures, etc. Incorporate copies of these in the history and add a judiciously chosen few from year to year.

I am sure that such records would in future years assume an interest and a value far out of proportion to the work involved. They would also serve as a base material for the History of the Forest Service which will be written some day. In many cases if these records are not compiled soon it will be forever too late.

RENDERING UNTO CAESAR.....

By E. W. Loveridge, Washington

Sometimes I wonder if the general public is made fully aware of the important services rendered by Forest Officers and Forest Service facilities during emergencies such as searches for lost persons and airplanes, as well as in major catastrophes like the Mississippi and California floods. Probably too often appreciation of the work done by the Forest Service is limited to the immediate beneficiaries. The public as a whole never hears of it.

One way to improve the situation is through closer cooperation with the newspapers, feature writers, and press services in developing the Forest Service angles of the main news theme, whatever it may be.

Our portable radio equipment is unique and always a good news-peg, yet I doubt if we have always taken full advantage of its possibilities. So, in addition to the very worth while service performed, the headline value makes it extremely desirable to insure Forest Officers and radio equipment arriving at the scene of major disasters on or near the National Forests, when emergency communication is needed, at the earliest possible moment.

DR. I. T. HAIG TO HEAD DIVISION OF SILVICS

The appointment of Dr. Irvine T. Haig as Chief of the Division of Silvics has been announced by Mr. Silcox. Dr. Haig has been Acting Chief of the Division for the past year.

Dr. Haig brings to his new position a broad background of technical training and experience. He is a native of Pennsylvania, having received his B. S. degree from Penn State and his Master's and doctorate from Yale. He has had fifteen years' experience on various assignments in the Forest Service in Washington and the field. He is an outstanding investigator in the field of silviculture, and is recognized as an authority on regeneration and management of western white pine.

YE EDITOR DISCOVERS

Preliminary reports from the California Forest Experiment Station indicate that the floods of mid-December and the first of March did considerable damage to the research installations. At the San Dimas Experimental Forest, near Glendora, some of the measuring flumes and weirs were washed out and some of the gauging devices and instruments were lost. However, many records were obtained of the run-off under the unusual conditions. On the San Dimas area a rainfall of more than half an inch an hour for more than 19 successive hours was recorded. For short periods intensities in excess of 2 and 3 inches per hour were recorded. The total for the storm amounted to approximately 26 inches. From one canyon unburned for 50 years a discharge of 125 second feet per square mile was obtained. From similar areas which had been subjected to fires during the past 20 years run-offs in excess of four times this amount were attained. On some small plots only two percent of the precipitation ran off as surface flow under chaparral cover. In the Kings River Experiment the run-off was so rapid from the heavily grazed watersheds that the flumes and measuring devices on some of the small streams were washed away. The major structures (stilling ponds and reservoirs) were badly battered. In both the San Dimas and Kings River areas considerable damage was done to other physical improvements, including trails, telephone lines, roads, etc.

Advices from the four southern California National Forests indicate a total estimated damage caused by the March flood of approximately $1,669,000. (This exceeds by over a million dollars the damage caused by the December floods to northern California Forests and brings the total forest flood damage to date for the winter of 1937-38 at $2,234,000.) The greatest damage was to roads and trails, although recreation facilities located in the canyon bottoms suffered heavily. It is estimated that 750 summer homes were destroyed, mostly on the Angeles and San Bernardino, and 90 percent of the public camps on the Angeles. The full extent of the damage is not yet known.

The flood control reservoirs built by the County of Los Angeles held back enormous quantities of water and a number of these are reported to have discharged also a huge volume of water over the top of the dam. The flood control structures put in by the Army Engineers in Los Angeles County suffered severely. Many of the debris basins were completely filled and some other structures, only partly completed, were destroyed. Information also indicates that most of the damage caused by the March storm was the result of erosion. Debris was washed into communities that had never in their history had such difficulties and highways were completely blocked by deposits of rock and debris several feet deep. In those watersheds where the snow pack was melted by the warm rains, practically all improvements in the lower canyon bottoms were washed away, the wall of water bringing with it huge quantities of boulders some of which were carried many miles out into the valley.

One of the lessons which the last flood reemphasizes is the need for better drainage and for erosion control on mountain roads, as much of the debris came from overcasts and raw slopes which were not held in place by vegetation or corrective measures.

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Some pertinent facts regarding the policy of the Forest Service in building roads into mineralized areas within the National Forests are contained in Regional Forester Rutledge's article "Mining Roads on National Forests," which is published in the March 1 issue of THE MINING AND CONTRACTING REVIEW. The Editor of the magazine also makes some interesting comments on the subject, refuting charges that the Forest Service has been unwilling to build roads into inaccessible mining areas.

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Four CCC dioramas showing work by enrollees were exhibited for some three months this winter in the exhibit rooms of the U. S. Tourist Bureau, 45 Broadway, New York City. These dioramas dealt solely with wildlife and the CCC's contribution to it. These same dioramas were shown at the recent American-Canadian Sportsman's Show at Cleveland, March 17-19.

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The 63rd Annual Meeting of the American Forestry Association will be held at Old Point Comfort, Virginia, May 5-6-7. Convention headquarters will be at the Chamberlain Hotel, which has offered special rates of $6 per day, American plan, including banquet and recreational privileges. Reservations should be sent to the Association headquarters at 919 - 17th St., N.W., Washington, D. C.

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Effective April 16, Milton R. Scott, Division of Fiscal Control, Washington Office, is being transferred to the position of Fiscal Agent, Prairie States Forestry Project.

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Bernard M. Frank, Acting Director of the Forestry Division of the Tennessee Valley Authority, has accepted a position with the Forest Service in the Division of Forest Influences, Washington Office.

SERVICE BULLETIN

CONTENTS CONFIDENTIAL

> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT xxx THE TIME HAS COME FOR A CHANGE AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY xxxx TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES. WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER
>
> Theodore Roosevelt

APR 23 1938
Agriculture

Vol. XXII No. 8 Washington, D. C. April 18, 1938

S - O - S

By A. D. Moir, R. 2

What is happening to our ranges? With growing unease, many of us have watched the Forest Ranger discard his horses in favor of an automobile and replace his long pack trips over forest ranges with an occasional day's ride on a rented nag. We have known that range management was suffering while we built roads and houses, organized things or people, and hammered out reports.

Fire and bugs, we still take care of, timber still is marked and scaled. These are "must" jobs, but our ranges--just how much have they been neglected?

In the F.Y. 1937, the six Western Regions spend $66,289 less, or five-sixths as much, on direct management of our range resources as they spent in the F.Y. 1932. Four of those Regions spent approximately three-fourths as much on range management as they did in 1932, and this at a time when expenditure on all other resource management has materially increased.

Does it matter? Having once fully catalogued our range resource, determined proper carrying capacities, organized range users, and prepared management plans, can we not afford now to spend one-third less time on range management without disastrous results? No one can answer that question definitely, for it is often years before the harmful results of overstocking or spotty utilization become apparent, but indications are not too encouraging. With stockmen losing interest in range management; with a large percent of management plans out of date or haphazardly used; with changes in climate, requiring adjustment in carrying capacities; with trespass on the increase; with constant danger of conflicts between grazing use and recreation or wildlife; and with administrative problems cropping up here and there, for which there is little time to fully analyze and cure, it would seem range management was a current job that we must work with constantly if we are to maintain our ranges in acceptable shape.

Perhaps the 1937 condition is an emergency situation that will right itself in a short time and permit as much or more time to be devoted to range work as was spent on such work before the advent of the C. C. C. Let us disabuse our minds of that idea right now. Our Rangers are giving their best already--it is exceptional to find one who does not put in twenty-five percent overtime each year. Recreation and wildlife, with their heavy demands on the field man's time, are here to stay, and they will make increased demands on the Ranger's time in the future. With reduced C. C. C. and E. R. A. programs, sample checks during the early months of the F.Y. 1938 indicate even less time on range management than during the preceding year. Ranger district analyses show only time for fifty percent of the range management work that is definitely needed.

Which is more important--to provide camp ground facilities for potential users, or to keep the plant cover on our ranges from being depleted; to sell timber, or to prevent erosion and loss of soil on large areas; to build recreation or utilization roads, or to protect our ranges?

After all, protection of soil, plant cover and water is the major part of our basic job, yet we have formed a habit of believing that timber sales and special-use applications must be cared for promptly and improvement construction must receive our personal attention. In order to accomplish these things, we fail to inspect our ranges properly, fail to get out on our ranges with the permittees, jeopardize the resources we are here to protect, because the result of our neglect is not immediately apparent.

What can be done?

1. Concentrate on a drive to secure more Rangers and Assistant Rangers, in accordance with need shown by new Ranger district analyses.
2. Cultivate the idea that ranges must be properly managed, even at the expense of other activities.
3. Cut down on indirect costs.
4. Require field men to travel progressively by horse on important grazing districts.
5. Limit official use of automobiles.
6. Divorce Ranger from participation in or responsibility for improvement work--make him strictly a resource manager.

FORMS - SPECIAL AND OTHERWISE

By L. C. Pratt, Washington

"Index of Standard Forms", the title of an essential little bulletin issued by the Supply Depot, is not in keeping with its contents. Of its twenty-six numbered pages (August 1935 issue) the first fourteen list standard (Service-wide) forms, and the remainder, nearly half the total issue, special regional forms of which there are just under six hundred. Allowing for some duplication in the latter, the number of special forms still exceeds five hundred. This takes no account of mimeographed forms in use in all field units, the number of which is legion. How much these special forms have cost the Government in direct outlay of money and in the time of the individuals who designed them can never be known. It must represent a considerable expenditure.

Is it unreasonable to suggest that this business of special forms may have gotten out of hand; or to question the value and necessity of many such forms? Without a careful analysis of each individual form that question can not be definitely answered. The extent to which the activity has grown would seem to justify a careful scrutiny and perhaps a general tightening up. A thorough study covering the whole question of forms, special and otherwise, ought to be a profitable one. It should go beyond the printed forms to include those prepared by mimeograph and similar processes. A hurried look through the form cabinet of any field unit will show the amazing number and variety of the latter.

Probably a fair proportion of these special forms have little justification. One illustration should serve to point the moral. The matter of reporting time of laborers and fire fighters is certainly basic and susceptible to uniformity whether the services are performed in Maine or California, in Florida or Washington. Its fundamentals are (1) name, title, and address of payee, (2) project, fund, or appropriation chargeable, (3) dates and number of units of service, (4) rate and gross amount earned, (5) details of deductions and net amount due, and (6) name and title of certifying officer. These items should be sufficient to effect payment. Other data might be desirable but would not be essential to payment, which is, after all, the prime function of the form.

It would seem to be a fairly simple matter to devise one standard form for this purpose that could be used throughout the entire Service. But what do we have? Form 874-15 Time Report (standard), 874-15a, Time Report for Fires, R1-F2 Fire Fighters Time Slip, R1-40 Time Report, R1-F2 Time Report, 10-R9 Time Report. Six forms for a single purpose! The individual forms are not at hand for comparison, but it is fairly safe to assume that all are used for reporting time of laborers and fire fighters. There would be no difficulty in pointing out other illustrations as illuminating - time books, work plans, job loads, and so on.

A simple remedy suggests itself: The Chief to appoint a committee on forms - a small committee, say not to exceed five members, composed of men of wide Service experience - the duties of which would be to make an early study of all existing forms, printed and mimeographed, eliminate nonessential ones, and wherever a form can serve two or more Regions make it standard for the Service; require all units to submit proposed special forms to the Washington Office for advance approval. This latter also to include mimeographed forms. It is understood that the Regions have already done considerable work along this line.

There is little question but that a practical hard-working committee vested with adequate authority would save the Government substantial sums of money and save all concerned the confusion and annoyance of this multiplicity of similar forms.

AN OASIS IN THE SAND HILLS

By L. H. Carr, Nebraska

Who said that the Nebraska Forest is a good place to be from? I just want to tell a few of you smart Rocky Mountain Rangers a thing or two:

When it became known that I was to be transferred to the Bessey District of the Nebraska Forest, there were some that simply ha ha-ed; others just giggled rather nasty like, while some even went so far as to look at me with a sad expression on their faces, like a dying calf.

Not having a ravenous appetite for writing, I dislike sending each of them a letter to let them know that the laugh is on them, in my opinion. So if the Editor of the Bulletin will be kind enough to print this article for me it will save me a laborious ordeal.

As I think of it now, I can see those mugs, one of them whom I met near Woods Landing as I was on my way here. He had just crawled out from under his car, all mud and dirt from taking off his chains, which he had to use in getting through the snow and mud on his beautiful district. When I told him where I was headed he threw back his head, opened up his mouth until it looked like a blowout in the sand hills and laughed. "Why," he said, "that is the last place in the world to go." Well, Brother Williams, we don't need chains down here. Laugh that off.

I understand that the brilliant staff technician on the Routt Forest stuck his leg in the snow and nearly twisted if off. Again I laugh. No snow like that in the sand hills, Mr. McCandless.

That Carl Sward thinks that he has the only timber sale in the world. I just want him to know that we have timber sales on the Nebraska too. I have had more small sales (we are keeping them small until some future date because we don't want to chisel in on Mr. Sward's business) in the past two months than I had on the Routt Forest in three years. Seventy-five sales for firewood, amounting to two hundred and four cords, at $1.00 per cord.

This wood was made available for sale through the thinning of the young stands by the CCC and the price is not exorbitant because the material was already cut.

One Rocky Mountain Ranger, John Miller by name - young upstart - made the remark that the sheriff would be looking for me for selling brush to poor folks at $1.00 per cord. It would do Mr. Miller's heart good to see the expression on these people's faces when they come for wood, expectant and anxious when they inquire if there is any left, and a smile on their faces you can see a mile when they leave with their load of three cords, which is the limit per person or family. They are thinking "No more gathering cow chips for firewood for awhile." That's how valuable wood is in the sand hills, Mr. Miller.

We can't boast of having a larger Engelmann spruce tree than any forest, but we do have trees which are the direct descendants of the royal blood of Austria and Finland. Seeds of our Austrian pine came directly from the North Alps in Austria and those of our Scotch pine came from Finland, so they did!

Yes, indeed! This little man-made forest is very pretty. Extending over 12,000 acres and located in the heart of the sand hills, it is a sight worth writing home about. The trees consist of Scotch, Austrian, jack, and ponderosa pine, and red cedar, ranging in height from about 50 feet, down to the seedlings recently planted. A much larger area would be afforested if it were not for the drought of the past several years.

The headquarters buildings and nursery are located along the edge of the Forest, on the south bank of the Loup River, among broadleaf trees intermingled with blue spruce and other conifers, pretty hedges around the nursery beds and neat white buildings, shrubs, lawns with flowers in summer, a swimming pool and a beautiful picnic ground in the shade of the trees. All in all, not the least bit hard on the eyes.

There are some Rocky Mountain Rangers, one short and one long, I know of, who think that they have grazing districts. Apple sauce! This little Bessey district covers only 90,100 acres, of which about 70,000 are used for grazing of cattle. This small area, stocked conservatively, supports 6,000 head of cattle for a season of seven months. Compare this with your big old 400,000 acre districts with their two to three month seasons, Messrs. Orr and Greffenius! In animal months I might have you bested.

The allotments are all fenced and most of them are individually used. Windmills supply stock water and the ranger can drive out to the mills on hot days and sit in the shade of the mill and count the cattle as they come in to drink. We have perfect control, so when we post actual use figures they are not just guessed at - get that?

It is certainly surprising the amount of grass these sand hills produce with a small amount of moisture. This has been well demonstrated the past few years with cattle being shipped in from good old Colorado, Wyoming, Montana, and the Dakotas, to prevent starvation on the home ranges.

There is a Ranger in North Park, of the Routt Forest, Blankenship is the name, who thinks he is located right in the heart of the best ranching and cowboy country in the U. S. A. Well, those North Park cowboys couldn't even carry branding irons to these sand hill cowboys. While in North Park they irrigate and put up hay all summer and shovel snow and pitch hay all winter, in the sand hills they ride the year round. Cattle graze practically year long on the ranges. A little cotton cake is fed during winter and this is done with a pickup which has a hopper constructed in the back end to hold the cake. The cowboy drives out where the cattle are, howls a few times to draw the cattle in, drives along and pulls a string from the seat which lets the cake pour out from behind and the cows are fed. No hay to pitch, few ranch chores to do, just ride - a cowboy's heaven.

And the weather! Better than I could imagine. Just light skiffs of snow, very little real cold temperature and just a wee bit of wind. I even put the screen doors on yesterday to keep the flies out of the house.

So there! You Rocky Mountain Ranger "goats" - are you laughing at me or with me?

- From the R-2 Bulletin

FOREST SERVICE MEMORIAL TABLET INSTALLED IN SOUTH BUILDING

By R. V. Reynolds, Washington

The Forest Service Memorial Tablet, which for nearly 17 years was located on the seventh floor of the Atlantic Building was installed March 28 in the Department of Agriculture South Building, which is now the headquarters of the Washington Office. The new location is on the third floor, opposite the elevators at the north end of Wing 2.

The Memorial is an example of Italian Renaissance, the style following closely that of certain old tablets seen in Italian cathedrals. In 1921 it was believed to be the only work of its kind in America. The material is Sienna marble, from a quarry near Florence, Italy. The lettering is French Old Style, deeply incised, filled with a hard, black cement containing numerous golden flecks. It reads as follows:

THESE MEN OF THE FOREST SERVICE
GAVE THEIR LIVES IN THE WORLD WAR
FOR THE WELFARE OF MANKIND

Charles E. Simpson
Clark B. Waterhouse
Herbert H. Harvey
Roy Muncaster
Horace B. Quivey
Stanley R. Augspurger
Donald R. Frazier
Bert Lewis
Cosmer M. Leveaux

John L. Mooney
Hubert C. Williams
Eugene R. McGlaughlin
Ward Norris Woodward
Errol D. Crittenden
Marcy M. Meaden
Harry A. Chamberlain
Thomas V. Keefe
Homer S. Youngs

Ray L. Greathouse

The material and design of this work of art resulted from the generous advice of Mr. Herbert Adams, a prominent sculptor of New York, who at the time was a member of the Fine Arts Commission. The work was executed by the Tiffany Studios of New York. The Memorial was unveiled June 10, 1921, during dedication exercises held in the New National Museum.

At the time of unveiling, mention was made of the services performed by two other Forest Service men whose names, for reasons considered valid at the time, were not included in the tablet inscription. Ralph McTavish of District One died in uniform. Rudolph Mellenthin, a German-American Ranger in District Four, was not allowed to enlist, but served as gallantly as any soldier. He was shot on the La Sal National Forest in the attempt to arrest a Mexican draft-evader.

The cost of the Memorial project was nearly $950, subscribed principally by the seven Districts, the Madison Laboratory, and the Washington Office. Individual subscriptions were very numerous and represented Forest Service people from the Forester to the wives and children of Rangers on distant stations. Hence, this tablet is a representative token of our gratitude for the sacrifice made by our comrades twenty years ago.

oOo

"It is impossible to overestimate the value of wild mountains and mountain temples. They are the greatest of our natural resources, God's best gifts, but none, however high and holy, is beyond reach of the spoiler."

"Thousands of tired, nerve-shaken, over-civilized people are beginning to find out that going to the mountains is going home; that wildness is a necessity; and that mountain parks and reservations are useful not only as fountains of timber and irrigating rivers, but as fountains of life." - John Muir

TIMBER CUT FROM NATIONAL FORESTS TO BE TAXED - MAYBE!

By Louis S. Murphy, Washington

The U. S. Supreme Court on March 7, handed down an epochal decision. In doing so it upset a long line of other decisions which, in part at least, have bulwarked timber and other resources cut or otherwise severed from the National Forests and other publicly owned lands, State as well as Federal, against the threat of taxation.

Chief Justice Marshall, who is perhaps most well known for his widely quoted aphorism, "The power to tax is the power to destroy," uttered incidental to a decision handed down in 1819 in McColloch v. Maryland, did more than merely coin a phrase. He set out in that decision the dictum that a State could not tax a Federal instrumentality (a federal instrumentality being defined roughly as any means or agency by or through which a government operates in the performance of a constitutional function). A half century later the same Court broadened the Marshall dictum to give it bi-lateral significance by holding in Collector v. Day (1871) that likewise the Federal Government could not tax a State instrumentality.

Then began the legal process of extending and stretching the meaning of the word "instrumentality" in an effort of those various agencies that in any way served a government directly or indirectly in the performance of a public function to obtain tax immunity for their individual or corporate undertakings. With the discovery of oil and natural gas on publicly owned lands the stretching process was carried to its limit. In Gillespie v. Oklahoma (1922) and Burnett v. Coronado Oil & Gas Co. (1932) the Court ruled respectively that a State could not tax the income of a contractor operating under an oil and gas lease on Indian lands and that the Federal Government likewise could not tax the income of a contractor derived from operating an oil and gas lease on State lands.

These decisions were rendered during the conservative regime of the Court, although strangely enough the late Mr. Justice Holmes, a confirmed liberal, spoke for the Court in the Gillespie case. Now, however, that the Court has "gone liberal" -- or hasn't it? -- the Court speaking through Mr. Chief Justice Hughes in this latest case, Helvering v. Mountain Producers Corp., concluded that it had gone too far in the past in extending tax immunity to agencies, the taxation of whose receipts would only remotely, if at all, affect the ability of the several governments effectively to perform their respective public functions. Accordingly, the Court expressly overruled the decisions in these two pivotal cases and the long line of decisions depending on them.

Comes now the 1937 New Mexico legislature and -- by what seems like clairvoyance or other black magic in foreseeing this change of heart on the part of the Court -- passes a carefully worded general severance tax law covering gold, silver, copper and other minerals and timber. Timber in New Mexico is found chiefly on National Forests and other Federal lands. The severance tax law as drawn seems broad enough and carefully enough worded to reach that timber with safety (so far as its constitutionality is concerned), particularly now in view of the above mentioned court decision. It provides that the tax shall be upon the value of the product (oil, gas, timber, etc.) after severance (not on stumpage value). The one liable for the tax is the owner of the severed product, the operator who severs the product, or it may be the first purchaser of the product in its severed condition. Furthermore, there shall be deducted from the severed value such amount as may have been paid or be due either the State or the United States as rent or royalty. (Stumpage value, undoubtedly.) As regards a National Forest timber sale contractor, for example, the severance tax he would be called upon to pay would doubtless be based on that portion of the value of the logs added by lumbering. Thus, if the felled, bucked, and yarded logs on the scale deck were worth $5 per thousand board feet and the stumpage price was $2 a thousand, the tax would be figured on the difference or $3 per thousand.

Although many other of the Western States have long talked about taxing timber cut from National Forests, they have all been balked heretofore by the constitutionality bugaboo. It is indeed a coincidence that New Mexico should have decided to make the try -- whether or no -- and have gotten the break through this latest Court decision that seems likely to get it the prize.

Only two other National Forest States have general severance tax laws which include timber, namely, Arkansas and Louisiana. Although there were National Forests in the former when its severance tax law was passed (1923) no attempt has ever been made that I know of to bring such timber under the act. In Louisiana where the severance tax on timber was first adopted (1910) there is relatively little timber of merchantable size on the National Forests recently acquired in the State. As to the small amount that is cut, it is reasonably certain that no attempt to apply the severance tax has yet been made.

As for such States as Washington, Oregon, California and perhaps some others that have long been itching to get a "tax cut" on National Forest timber, will they jump at this new bait? They certainly would if they thought they could get such a tax over the constitutional hurdles that would probably arise if it were made applicable only to timber cut from publicly owned land. But if such end could only be attained by means of a general severance tax applicable to privately owned timber as well, -- There's the fly in the ointment.

YE EDITOR DISCOVERS

In response to several requests for an interpretation of paragraph 1 of the Memorandum of Understanding with the Forest Service Section, Agriculture Branch, Local #2, of the National Federation of Federal Employees, Mr. Silcox has issued the following statement:

"It was not the intention of this memorandum to be restrictive in any sense or to designate the N.F.F.E. as the sole agency to represent Forest Service employees in the presentation of personnel or welfare grievances. In order to place clearly before you just what the memorandum does contemplate, the following interpretation, which is fully concurred in by the Employee Representation Committee, is given:

"Recognition of the said Section as an agency to represent the interests of all Forest Service employees in the District of Columbia does not exclude and was not intended to exclude the representation of any employee or employees so choosing by some other employee organization, agency, or individual; nor does it curtail the freedom of any individual to present his own case independently and directly to me or other executive officers of the Bureau or Department."

The signing of the Memorandum of Understanding by Mr. Silcox was announced in the March 7 and 21 Service Bulletin.

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In his letter denying "Dictator" aims, President Roosevelt made the following statement:

"The opposition (to the Reorganization Bill) has planted bogies under every bed. *** It is charged that the splendid work of the Forestry Service is to be hamstrung - hamstrung, I suppose, by the best friend forestry ever had in the United States."

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Fire Control Notes has had to suspend publication since the December 6, 1937, issue because of consideration being given by the Department and the Bureau of the Budget to the proposal that it be printed in the Government Printing Office. On February 19, in a letter to the Secretary, the Bureau of the Budget approved the printing plan, but stipulated that the periodical can be issued no more frequently than quarterly and that only 4,000 instead of the desired 6,000 copies per issue may be printed for free circulation. It had been hoped that the latter restriction might be removed, but the Bureau of the Budget has now declined to alter its decision. The next issue will therefore be distributed in about five weeks as the first quarterly issue of the year 1938.

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The words of the narration in the Farm Security Administration film "The River", which were written by Pare Lorentz, nationally-known film critic, have been published in book form.

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After much editing, rewriting, and changing in make-up and reduction in number of illustrations, the Fire Control Equipment Handbook, which was prepared by the Fire Control Equipment Committee during the winter 1936-37, has received final approval of the Joint Committee on Printing and work on it has now started in the Government Printing Office. It is estimated that about three months will be required for completion of the printing.

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The Mississippi Legislature recently passed an act making the Magnolia the official State tree. The bill was sponsored by the Mississippi Forestry Commission.

MOUNT HOOD FOREST RADIO PERFORMS VITAL SERVICE

Forest Service short wave radio rendered vital aid in the recent tragic rescue of Roy Varney, veteran Mazama climber, on the blizzard-swept slopes of Mount Hood.

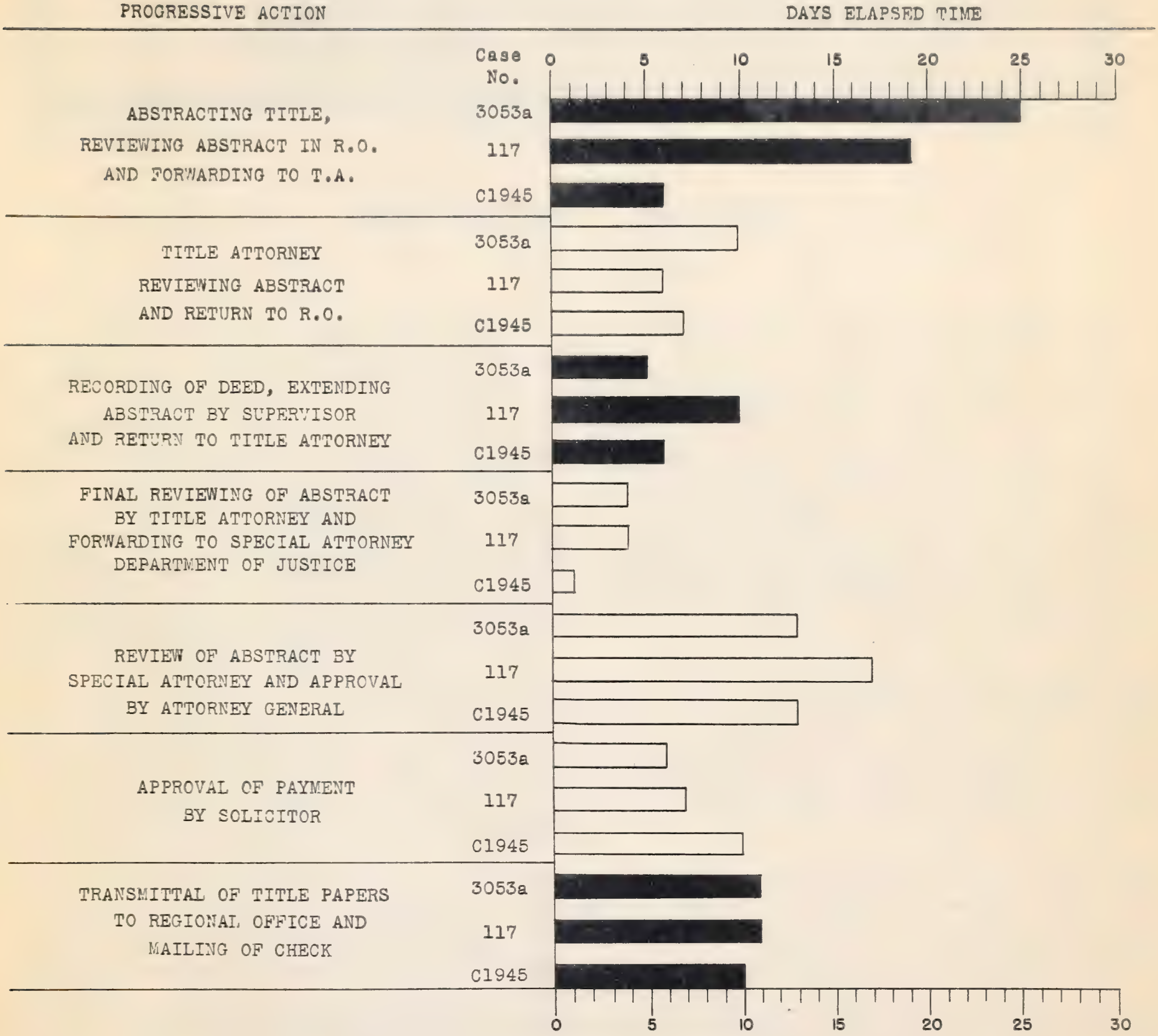
When report reached Timberline Lodge late Sunday afternoon (March 26) that Varney had collapsed on his attempted return from near the summit of the mountain with a party of fellow climbers, the radio office at Summit guard station on the highway above Government Camp immediately became a hive of communication activity. Upon Eugene Mathews, forest guard, first aid man, and radio operator at the guard station, fell the responsibility of relaying radio messages from Timberline Lodge to Zig Zag ranger station to obtain a rescue party, later a doctor, and finally an ambulance. With the local telephone out of commission because of storm conditions, the radio station was constantly in use.

As a result of effort in which radio played a vital part, a rescue party was organized, men and equipment were obtained, and the urgent need was met.

Although the faithful effort contributed from many sources ended in tragic disappointment with the death of the rescued, the potential importance of forest radio service on occasions of this kind was fully emphasized. The experience recalled a similar use of Forest Service radio nearly four years ago when a member of a party of University of Washington climbers fell to his death in a crevasse near Crater Rock close to the scene of Varney's misfortune. Eugene Mathews was on duty without respite from 7 a.m. Sunday till about 8:30 a.m. Monday. During a subsequent search for Russell Gueffroy later missed from the ill starred climbing party, six portable radio sets were used by searching parties with the control radio station at Timberline Lodge. - R-6 Press Release

CHART SHOWING ELAPSED DAYS IN PROGRESS OF THREE LAND PURCHASE CASES IN REGION 8 APPROVED FOR PURCHASE DECEMBER 16, 1937.

SIDNEY H. DEW - #3053a - CHATTAHOOCHEE - 234.8 A.
IVY MARMON - # 117 - HOLLY SPRINGS - 35. A.
KENNA STEPHENS- #C1945 - KISATCHIE - 123.78A.



Case #3053a	■ TOTAL DAYS IN HANDS FOREST SERVICE 41	☐ TOTAL DAYS IN HANDS OTHER AGENCIES 33
Case # 117	■ TOTAL DAYS IN HANDS FOREST SERVICE 40	☐ TOTAL DAYS IN HANDS OTHER AGENCIES 34
Case #C1945	■ TOTAL DAYS IN HANDS FOREST SERVICE 22	☐ TOTAL DAYS IN HANDS OTHER AGENCIES 31

MAY 7 1938
U. S. Department of Agriculture

FOREST SERVICE U S DEPARTMENT OF AGRICULTURE

SERVICE BULLETIN

CONTENTS CONFIDENTIAL

> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT xxx THE TIME HAS COME FOR A CHANGE AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY xxxx TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES. WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER
>
> Theodore Roosevelt

Vol. XXII No. 9 Washington, D. C. May 2, 1938

AFTER ACQUISITION - WHAT FOLLOWS?

By A. G. Lindh, Washington

The land of cotton and pine in the Piedmont Plateau in South Carolina had grown tired -- tired of 150 years of misuse. Part of it slipped and went down the river. The raw red wounds grew deeper. Cotton growth dropped from a bale per acre to a third of a bale or less. The pine lands, 80 percent of the area, became haggard and bedraggled. Fire skinned off the protecting blanket that might have stayed after logging.

The overlord - of any large tract of it - grew tired too. Tired of the headaches of an overlordship no longer remunerative. His 15 or 20 third or fourth generation tenants were tired -- tired of the chills and ague; the third or fourth generation leaky roof; the third or fourth generation refuse-filled, tainted well; the third or fourth generation lack of toilet facilities; of 5 to 10 kids growing up gaunt, hungry and unmoral, sleeping all in one third or fourth generation room; tired of having the rent raised during the year if the crop was good, and of being always in debt.

In 1934 a new overlord, Uncle Sam, appeared on the scene. He made a contract to buy the land of the old overlord, for use as a National Forest. After several years of examining a somewhat doubtful title Uncle Sam paid off the old overlord in the spring of 1937 at the rate of about $4 per acre. Some might think he should have had a kick in the pants instead of the $4, but since a large part of it went to pay delinquent taxes and life insurance company owned mortgages, that rather beguiling thought is out of order, and we must assume it was worth the price.

After acquisition, what comes? Would a grim Uncle Sam in green breeches and shiny boots -- James Montgomery Flagglike -- go striding across the worn and wounded cotton land (about 20 percent of the area) with an exterminator in one hand and a tree planting hoe in the other. One might have expected it, trees being revered as they are by the forest priesthood.

The young proconsuls of the new overlord were on the job; perhaps not just sure what to do at first, but nevertheless, on the job. Considering the somewhat cloistered background of professional foresters this was quite a spot to be put on. Old Jim Sharecropper, the first tenant in 1937 to ask for a permit, wanted 48 acres because he had boys to work. Seems he had nine children. He got his permit including the shack for $53, which he had to borrow and did. This spring he came in for his permit and to the astonishment of the Ranger he paid cash for his money order without borrowing. When asked how he would get fertilizer he said, "Ah goin' go to de bank an hab dem make a check." Tsk! Tsk! a tenant with money in the spring of the year! He was an unusual one maybe -- but this one had never had money in the bank before.

In the meantime what's happened to the land and the third or fourth generation shack?

On a warm day in October a shiny CCC truck pulled up to Old Jim's place. The warm pungent odor of third or fourth generation debris greeted the "skilled worker" as he got out of the truck with three local enrollees. The youngest half of Old Jim's brood (he had 10 by this time) peered furtively out of a third or fourth generation vacant staring window space. A lop-eared, mangy hound slept fitfully on the broken sloping porch.

The "skilled worker" and the enrollees laid out the simple plan of improvement with Old Jim. The more exacting jobs were to be done or closely directed by the "skilled worker;" the rest by Old Jim and his boys. Salvage lumber from other acquired abandoned buildings was used. Old Jim built the barn almost entirely without help. Windows -- yes, windows! -- were fitted into the openings in the house. Walls and roof were securely, though not beautifully, repaired. Foundations were replaced or repaired. Ceiling and partitions were put in. Then the paint job was started. The first paint on boards weathered through the decades. Inexpensive, yet lasting brown paint put on with a power spray gun, that is, all except the white trim which was demanded by Old Jim to keep evil spirits away, and which had to be put on by hand.

The well was cleaned, lined, curbed and limed. It is now closed against surface drain, and has a pump. Cash cost of the well improvement was $12.50. $12.50 isn't much when it means the difference between dysentery or typhoid and a chance for health. A simple flyproof toilet was provided. The total over-all cost of the improvements, to the Government, was about $150 per tenant family.

After the Forest Service crew moved on, the County Home Demonstration Agent dropped in, by agreement with the Forest Service, with intelligent and practical methods for improvement of home practices. After her came the County Agricultural Agent with the Special Use Planner of the Forest Service. For the first time the County Agent could work with a tenant with the knowledge of full support from the landlord. Simple terracing, cropping, and soil building practices were installed, most of which Old Jim was glad to get because he knew his crops needed to be increased. Family gardens forecast the end of pellagra. All local agencies or workers involved entered into this job of human and soil conservation with a practical, sensible, inexpensive approach that will not permit failure.

Now that a half year has elapsed you may wonder how Old Jim and his family are treating the new improvements. The answer appears quite apparent already. The yard is surprisingly clean, actually having been swept. The windows are shined until there is some danger of the glass wearing out. The garden is well laid out and planted. The pride of proprietorship is apparent.

One unexpected result of this work has been a sudden spurt of similar private activity on many of the tenant houses in the neighborhood not owned by the Government. The sound of hammer and saw seems to be as contagious here as anywhere else in the world. New roofs, straightened foundations, and patched walls make that area somewhat outstanding compared with the average situation. The key to the initial success of the Forest Service in this work seems to be in using simple practical methods. To build expensive new homes at costs above the means of the average resident would be the wrong thing to do, but meeting the minimum requirements of good landlordship is getting results.

The job is, of course, only partly done. Only a small percent of the Forest Service tenant homes have had the face lifting treatment. A workable credit system is needed. There will always be a tough job of follow up to handle. But through the years while the pine timber is growing, building up the principal backlog of wealth for this blighted area, no job of the Forest Service appears to have more fundamental worth than the restoration of these living human resources, who must either live on the National Forest, or be ousted to a worse area elsewhere.

PROFITABLE MANAGEMENT OF SHORTLEAF AND LOBLOLLY PINE FOR SUSTAINED YIELD

By W. G. Wahlenberg, Southern For. Expt. Sta.

This is the title of a report on the financial aspects of forestry, recently released by the Southern Forest Experiment Station as Occasional Paper No. 70. The paper contains an exposition of the kind of forest management recommended for typical second-growth shortleaf and loblolly forests of the South.

While the general measures necessary to initiate sustained yield on forest properties are too well known to foresters to warrant repetition here, certain recommendations in this paper are possibly unique. Instead of the practices followed in many earlier attempts to establish sustained-yield forestry, the authors suggest drastic economy in making the initial forest inventory, proposing a very non-intensive timber cruise which, for uniform tracts of 10,000 acres or larger, need not be over one percent of the entire property. On this preliminary cruise the average amount, distribution, and increment of growing stock need be determined only for the entire holdings, and no attempt should be made at this time to locate and map bodies of timber, the purpose of the inventory being merely to establish a temporary basis for a limitation of the total volume of cut. Money thus saved to the forestry budget then becomes promptly available for investment in an intensive effort to develop an efficient system of selective cutting. To do this, the marking crew should eventually cover every acre, not only marking all trees to be cut, but simultaneously tallying all sawtimber trees as cut or left and making a map. Covering between 40 and 80 acres of second growth timber a day, it is estimated that an experienced crew can do this marking and recording at a cost usually below ten cents per M board feet of cut. In this way the really vital information on timber resources and increment will be gathered by compartments in highly reliable and useful form. Nor will the results be delayed unreasonably, for the cut is to be a light one spread over a relatively large area to obtain the required volume. Studies have shown that 500 board feet, or less, per acre can be logged economically in this way. Even in the thrifty, rapid-growing, readily accessible, second-growth, shortleaf-loblolly stands of the South such a procedure is an innovation -- hardly practical previous to the recent developments in roads and in transportation of logs by motor trucks. Not over 25 to 30 percent of the growing stock should be removed in any one cut, and because of the prevailing understocked condition of most stands it is recommended that for the present at least 20 percent of the growth be reserved wherever possible. Cuts should be light and frequent; short cutting cycles of 5 to 10 years are recommended. It is suggested that the preliminary information on growth rates, based on increment cores obtained in the initial cruise, be gradually supplanted by more reliable growth data, obtainable by compartments from the application of the continuous inventory system.

While the silvicultural needs of the forest deserve primary consideration, especially in the first cutting, it is not thought necessary, either then or later, to remove trees at any financial loss. Present markets generally render such cash outlays in cultural investments unnecessary, while permitting a vast amount of stand improvement as a result of judicious commercial cutting. Many low-profit trees must be eliminated early from all size-classes, but ordinarily not until these inferior stems have reached financial maturity; i.e., the time when satisfactory increases in volume and value can no longer be expected. Always the emphasis should be on selection of the most suitable stems for profitable future utilization, attempting to shift the growth from inferior to superior trees. Admittedly the full scope of such a procedure is dependent on adequate markets, but the recent development of the pulpwood market now permits closer and better-integrated utilization over much of the South. Hence, foresters can afford to pay increased attention to improving the quality of reserved trees. As yet no general recognition of log grades has been achieved, but it is advocated that the high value of the few trees that can meet the exacting requirements of special uses not be sacrificed, as it commonly is, by marketing this material indiscriminately mingled with logs yielding only low-value products. Profits obtainable from forest management of pine stands averaging 3,000 board feet per acre are estimated at $1 per acre from the start, with good prospects of material increases as the beneficial effects of such management accrue in the woods.

PSYCHOLOGY STUDIES RECOMMENDED

(For some months Dr. John P. Shea, Fire Prevention Psychologist for the Service, has been conducting studies of the motives, customs, and folklore of the entire human population of the southern forests looking toward the reduction in man-caused fires. In the following letter to Regional Forester Kircher, Mr. Headley proposes an extension of such scientific studies into wider fields.-Ed.)

Regional Forester,
Atlanta, Georgia.

Dear Sir:

When Dr. John P. Shea, Fire Prevention Psychologist, and I were together on the Cumberland, we devoted one evening to the question of how best to benefit from the interest in our problems now being expressed by outstanding psychologists and sociologists.

These men readily grasp the importance of what we are doing and believe that scientific studies should disclose practical ways and means of making our efforts more effective. Detailed studies on the ground would be required. If Region 7 can provide the necessary $500 or $600, such a study may be undertaken in the Cumberland this season. The appalling difficulty of making headway in fire prevention here on the Clark makes me wish a similar detailed study could be initiated here.

The outstanding men emphasize the necessity of careful planning and technical supervision to avoid getting off into aspects of merely academic interest. They suggest that we give them a starting point by defining what we should like to know from them.

In a general way, I would answer for fire prevention by saying we want to know what a scientific study of folklore, traditions and social psychology may disclose that will enable us to make our fire prevention efforts more effective. Unless we can find more effective keys to the attitudes of typical individuals and communities, we have ahead of us a heartbreaking task.

But as I see it, the possibilities from such studies reach far beyond the subject of fire prevention. Despite all we have done to change attitudes of people, the concept of timber mining is still deeply intrenched. The concept of timber as a crop supplying income for individual land owners and wealth for the State has hardly gained a foothold. Without depreciating the efforts of the States and ourselves, it remains true, I believe, that we have never turned to social scientists for help in what is after all a human rather than a forestry problem. Journals of sociology regularly publish articles showing the insight such studies provide in other fields. I have never seen anything of the kind bearing on our problems.

In these socially and economically blighted areas it is hard for me to see permanent value coming from the projects where the Government does everything and merely asks the beneficiaries to be the passive recipients of limited bounty from a benevolent but cranky Federal overseer. If we went back to a truly scientific study of how such peoples got the way they are and what might be done to fan the dying sparks of hope and energy, something might be accomplished which, while not showy, would have a far greater ultimate value. It might not be impossible to arouse the interest and initiative of such depressed communities and help them to help themselves in developments into which they as well as we would put creative thought. Even assuming that mandatory Federal regulation may be imposed, the active interest and participation of land owners will still be essential to any satisfactory outcome.

I am writing you this because if there is any promise in such wider scientific studies, it will be necessary first to enlist the interest of leaders in the Service. This approach to our larger problems may be of interest to Mr. Silcox.

I arranged with Dr. Shea that when he returns from the West we would present what I have outlined to Washington men. I forgot that by that time I will be off on another trip.

Hence, I am proposing that you discuss the possibilities of scientific studies in these larger fields with Dr. Shea and if you feel so inclined, present the subject at the Regional Foresters' Meeting next month.

Very truly yours,
(Signed) ROY HEADLEY
Chief, Div. of Fire Control

PERSONAL RELATIONS

By Harold L. Dunn, 2nd Corps Area Educational Adviser, CCC

In a recent survey of personnel, conducted by a large organization, it was found that thirty-two percent of all dismissals was caused by incompetence, sixty-four percent by inability to get along with the other person, and the balance for other causes.

Here is a challenge of the first magnitude for us. The solution of the sixty-four percent does not require any machinery, any workshops or other elaborate equipment. It has to do, however, with that least common denominator of human relationships: attitude toward life and fellow man.

In the camps we have done a great deal, directly and indirectly, in teaching boys how to get along. We can and should do a great deal more. One of the best ways of approaching this problem is through the teaching and DEMONSTRATION of good manners. We should emphasize the idea that a man who is courteous is not necessarily a "sissy." There should always be a decent respect for the feelings and opinions of others, for the person who does not recognize this need will wake up some time and find himself in the category of the sixty-four percent mentioned above. It is not possible to over-emphasize the importance of good manners as a build-up toward adjusting to life. Good manners (omitting effete poses) usually bespeak healthy attitudes, and if we can do nothing else in those camps we can bend every effort to the building up of sane and constructive attitudes to fellow human beings and life in general.

Advisers should clarify their own thinking in this field. Manners are not altogether imposed from without; they are not the proper subject of legislation. But they have their genesis in a fundamental human need which is universally felt - to have our own individualities respected and, by the same token, to respect others.

Any thoughtlessness or lack of courtesy and consideration on the part of any enrollee should automatically constitute a challenge to the camp adviser. He should show such an enrollee how he is defeating his own ends. Advisers who have gone out from this office will recall that they were told that their first job is to keep the personality equation balanced, and by the same token advisers should demonstrate to enrollees how this should be done and why it should be done. Good manners are the lubricant for successful living. - Extracted from article "Education Must Move in New Directions" - in "The Adviser," 2nd Corps Area.

FISH - BASIS OF PRESENT REGIONAL ECONOMY

Salmon occupies an economic place in Alaska similar to that of corn in Iowa. As the foundation of a $45,000,000 industry it supports more than one-half of the population, including Indians, and provides 80 percent of the tax revenue of the Territory. When the market for canned salmon is good Alaska flourishes and when it is poor the Territory droops. With twenty years of efficient fish conservation along thousands of miles of remote Alaska Coast line, the annual salmon run has been more than holding its own. A record pack of 8,500,000 cases (48 1-pound cans) in 1936 was followed in 1937 by the second highest pack. The local people look forward with gratification to an unending income from this replenishable source and even the children know that this is dependent on a continuing application of conservation measures.

The Alaska salmon run is also an important factor in the economy of the Pacific Northwest. Thousands of persons sail north in the spring to share in this rich harvest of the sea and return south in the fall to live throughout the winter on the proceeds of their six or seven months of Alaska labor. The long sea journeys to isolated shore stations, hurried preparations for the catch, feverish activity to make every minute count in the six to eight weeks of actual fishing, the great schools of migrating fish, rivalry among workers for rich hauls, and the urge to clean up and get back home in the fall, all combine to make this a romantic and thrilling industry.

Alaska may now experience its first year of no fishing since the industry started in 1868. The canning companies are still deadlocked on the matter of wages with the packing forces, fishermen and marine cargo handlers, after many weeks of conference. The canners say that low prices and the carryover from last year's great pack preclude paying the wage scale demanded. Agreement must be reached very soon if the millions of dollars worth of equipment and supplies that are used by the industry are to be purchased and started north in time. The fish run will not wait.

Failure of the industry to operate for a year would profoundly affect this Forest Service Region. Our timber sales and practically every other type of National Forest use are largely dependent on fishing along the 800 miles of ocean front and the 12,000 miles of included shore line that border the National Forest area. Moreover, this is the most populous and highest developed portion of the Territory. Extensive WPA and other forms of relief, especially among the Indians, will be imperative and the Region will doubtless be asked to carry on many of the work projects. - Quarterly Informal Report to the Chief, Forest Service, from Region 10, Period January to March, 1938.

THE EDITOR DISCOVERS

Chief Silcox and other members of the Washington Office welcomed the group of 25 German foresters, who are touring the eastern part of the United States, at a meeting on April 15. Mr. Silcox made the address of welcome and Messrs. Haig, Chapline, and Fitzwater spoke briefly on various Forest Service activities. A talk prepared by Mr. Dutton was translated into German by Dr. Blumenthal and was also read by him. Dr. Mienecke was in charge of the meeting.

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The estimated cost of repairing flood damage to National Forest improvements in California caused by the floods of December 1937 and March 1938 is as follows:

Horse trails - $81,139; truck trails - $1,065,514; bridges - $252,806; campgrounds - $302,595; telephone - $62,151; dams and weirs - $110,678; buildings - $53,575; water system - $52,000; total $1,980,458.

Special allocations from W. P. A., C. C. C., and the release of the Forest Service budget reserve will reduce this total to $1,442,010.

Forests reporting the greatest damage are: Angeles - $684,400; San Bernardino - $425,200; San Dimas Experimental Forest - $225,000; Los Padres - $153,850; Lassen - $116,396; Sierra - $81,200; Cleveland - $54,800.

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Authority has been conferred by Secretary Wallace upon the Chief, or any Assistant Chief designated by him for the purpose, to sign the formal record of acceptance of title to any land in process of acquisition for National Forest purposes by purchase, donation or devise after title thereto has been approved by the Attorney General or the Solicitor of the Department, as the established procedure may require in the particular case.

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The Solicitor has informed Mr. Silcox that if the Forest Service believes that as a matter of policy cases involving donations of land to the United States for forest purposes should not be submitted to the Attorney General for approval as to title, his office will be guided by its decision. The Solicitor has been advised that the Forest Service believes that as a matter of policy donation cases under the Act of June 7, 1924, should not be submitted to the Attorney General for approval.

The titles to tracts of land upon which public buildings are to be erected must, of course, be submitted to the Attorney General for approval under Section 355 of the Revised Statutes.

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Public regulation of private forest lands, recently discussed by President Roosevelt in a special message to Congress, will keynote the 63rd annual meeting of the American Forestry Association, to be held at Old Point Comfort, Virginia, May 5, 6 and 7. A critical study of pulpwood development in the South, the social and economic aspects of which are claimed by experts to offer an entirely new field in human and natural resource conservation, will also be discussed. In connection with the meeting field trips will be made to Williamsburg, Yorktown, and other centers of restoration work being done in the Colonial National Historical Park. Private forest operations in and adjacent to famous Dismal Swamp will also be visited.

Among the speakers will be: F. A. Silcox; Governor Olin D. Johnston of South Carolina, who is taking an active interest in the pulpwood industry in the South; Karl Swenning, member of the executive committee of the American Pulpwood Association; James G. K. McClure, President of the American Forestry Association; S. T. Dana, Dean of the School of Forestry and Conservation, University of Michigan; V. M. Geddy, Vice President of Colonial Williamsburg, incorporated; and F. C. Pederson, President of the Association of State Foresters.

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On April 25 the National Farm and Home Hour went on daylight saving time. This brings it one hour earlier, based on standard time, in each time zone.

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In order to remove silt from the water used in their pulp mill, the Champion Fiber Company of North Carolina has been expending from 17 to 25 thousand dollars annually. The water requirements for their mill is 40 million gallons daily. After the silt has been removed from the water at the company's filtration plant it costs annually four thousand dollars to dump the silt back into the river again. Most of the debris, of course, comes from mountain agriculture.

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Millions of trees have been planted by farm boys and girls in New York State during the past 13 years. The total will pass the 15 million mark this spring as 4-H club members and students in vocational agriculture set out 1,637,000 trees, according to James D. Pond, Assistant Extension Forester at Cornell University.

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Fifty senior forestry students from the University of Georgia School of Forestry at Athens, accompanied by Prof. G. D. Marckworth, Director of the School, recently visited the Regional Forester's Office at Atlanta, according to a R-8 news release. A full day's schedule was arranged for the students beginning with a round table discussion at 8:30 a. m. and continuing through the general discussion period which ended at 6:00 p. m. Subjects in which the students received first-hand information included National Forest administration, Engineering, State and Private Forestry, CCC administration, recreation and wildlife management. Division Chiefs in charge of each of these activities handled the discussions.

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In a letter to Secretary Wallace, Mr. J. N. Whittet, Agrostologist of the Department of Agriculture New South Wales, has expressed his appreciation of the courtesy and assistance accorded him by members of the Department of Agriculture during his investigations into pasture matters in this country. He particularly mentioned the following members of the Forest Service:

Messrs. F. A. Silcox, and W. R. Chapline, Washington, D. C.; Mr. W. G. Koogler, Albuquerque, New Mexico; Messrs, Upson, Culley, Bliss, Ares, Valentine, Cassady, and Hendricks, Southwestern Forest & Range Experiment Station; and Messrs. Nelson, Biswell, Talbot, Bentley, and Kraebel, California Forest & Range Experiment Station.

NEW DISCOVERIES ON ELM DISEASE MAY SLOW UP CONTROL EFFORTS

Plans for the eradication of Dutch elm disease have been changed somewhat to meet a new danger revealed by recent research, according to the Bureau of Entomology and Plant Quarantine. Plant pathologists of the Department find that the fungus causing the Dutch elm disease may be present for several years in an elm without giving any outward sign of its presence. This means that the annual scouting by present methods, which depend on observations of wilting, dying foliage and branches, does not reveal every diseased tree.

These trees, however, may never become a center of infection. As long as the fungus remains within the tree, the danger of the disease spreading to other trees is slight unless broken limbs should bring the infection to the surface. The pathologists find also that Dutch elm disease can live and grow in dead elms.

These new discoveries may prolong the fight to save the American elm from destruction. They emphasize the need for removing elms of low value throughout the area where the disease occurs - an area radiating out about 50 miles from New York City into Connecticut, New York, and New Jersey. Scouting will be continued in all areas where the disease is known to occur and also in sections in the vicinity of rights of way of the railroads over which infected logs were hauled before quarantine prevented their importation and interstate movement. Every diseased tree found will be destroyed. As many possible of the devitalized and largely dead trees in the infected area will be destroyed. These trees are a menace because they offer a place for the multiplication of bark beetles, the insects that carry the disease. Elm trees of low value found in large numbers in places that are hard to scout will be destroyed.

Despite the fact that infected trees showing no outward signs of the disease may have been passed over by the scouts, the Department still is convinced that the Dutch elm disease can be eradicated from the United States, if the necessary man power and equipment are on hand at the right time. - Department of Agriculture Press Release.

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"Every other civilized nation in the world has been compelled to take care of its forests, and so must we if waste and destruction are not to go on to the bitter end, leaving America as barren as Palestine or Spain."

"In their natural condition, or under wise management, keeping out destructive sheep, preventing fires, selecting the trees that should be cut for lumber, and preserving the young ones and the shrubs and sod of herbaceous vegetation, these forests would be a never failing fountain of wealth and beauty."

- John Muir

SERVICE BULLETIN

CONTENTS CONFIDENTIAL

> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT xxx THE TIME HAS COME FOR A CHANGE AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY xxxx TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES, WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER
>
> Theodore Roosevelt

Vol. XXI No. 10 Washington, D. C. May 16, 1938

13-4651

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U.S. Department of Agriculture

A GRAZING POLICY FOR THE OZARKS

By Walt L. Dutton, Washington

Picture for a moment the average farmer in a certain section of the Missouri Ozarks. He has a wife and four or five children, a small home, a few chickens, a family garden, two or three cows, a horse, and some hogs. He may or may not own the land on which he resides. His meager income was once supplemented by a financial return from the nearby timber, and from his livestock products; but with the harvesting of the available timber crop his livestock in many cases remains his sole source of cash income. There are 10,000 other farmers like him, owning more than 30,000 cattle and 35,000 hogs, living within the boundaries of the Gardner National Forest Purchase Unit.

This Ozark farmer, if he is old enough, can remember the time when his native hills were covered with pine and scattered red and white oak that harbored a plentiful supply of wildlife, including deer, bear, and turkeys. For him, however, there is scant comfort in assurances that his ultimate welfare may best be served by restoration of the original conditions. He knows that his crying need today is a dependable source of immediate and continuing cash income.

The Forest Service has heretofore made no provision for grazing as a distinct activity on the Gardner except through the issuance of special-use permits. However, under a new policy recently approved by the Chief, on an experimental basis certain selected areas within the Forest are now to be placed under grazing administration, with other areas to be included later if the experiment justifies. The plan, with minor exceptions, will follow the trail blazed by Western Regions when grazing was first placed under administration years ago.

This plan contemplates establishment of dependency zones (they are about to be discontinued in the West) made up of range and farm lands that together form a yearlong unit. Within these dependency zones, permittees will be selected through giving first preference, temporarily at least, to resident settlers with gardens, chickens, and milk stock sufficient to supply the family needs, providing such settlers were grazing users of National-Forest lands when the ranges were placed under administration. This class may graze up to the equivalent of five head of cattle without actually owning either the land or the livestock.

After this preferred class has been provided for, any range remaining will be apportioned on a uniform percentage basis to Class A applicants residing within the zone. In order to be a Class A applicant for range on the Gardner unit, an applicant "must reside within or adjacent to the National Forest; must own land upon which feed is produced adequate to care for stock owned during a three months' winter period; must raise a family-sized garden and keep a sufficient number of chickens and milk stock to meet his family needs; must own not in excess of 20 head of cattle or the equivalent in terms of animal units; must be dependent upon the use of National-Forest range for pasture during a portion of the year in order to realize a livelihood."

Hog grazing will be allowed. There will be no free grazing. Permittees will pay 15 cents per head per month for horses and mules, 12 cents for cattle, 4 cents for sheep and goats, and 9 cents for swine. Preferences as such will not be allowed in the beginning, but may come later if the findings of the experiment justify such action.

This experiment is the Region's answer to the question: "What are we going to do about grazing on eastern Purchase Units?" It makes no promises, but undertakes in an orderly and systematic manner to find out the answers to some of the most difficult problems of National-Forest administration in eastern and southern Regions. The realists among our western grazing men, especially, will see in this experiment an effort to build a Utopia for many farmers with little worldly goods. They will regard the effort as further encouragement to continue the "submerged two-thirds" on a submarginal basis. A few foresters will be apprehensive over any recognition of grazing as an intergral part of Forest management in the East.

Regardless of these reactions, the problems of ten thousand families living within the Gardner Purchase Unit became the problems of the Forest Service the day acquisition was approved. Region 9 officially recognizes this in the initiation of this experiment, and for that is to be congratulated!

"HERE SLEEP THE ANCIENT PEOPLE"

By Albert Wiesendanger, Mt. Hood

In a shaggy Indian cemetery two miles east of Beacon Rock on the Evergreen highway enroute to the Wind River Nursery on the Columbia National Forest, I inspected in silence this afternoon a marker bearing the inscription "Ankutty Tillikum Museum - Here Sleep the Ancient People."

This cemetery, located a short distance below the Bonneville Dam, was, a short time ago, the scene of a very impressive ceremony. Here under second growth Douglas fir trees were reburied, in a concrete vault, the skulls and bone fragments of the "Ankutty Tillikum", the ancient people, whose resting place on historic Bradford's Island near the mouth of Eagle Creek on the Columbia River had been clawed by the power diggers for Bonneville Dam.

The gathering in this historic cemetery, which is called "Greenleaf," numbered about 300, whites and Indians. Most of them were descendents of those whose graves had been ripped open by the steel blades of progress -- the Cascade Indians, a people, by the way, who prefer to be called by their own name of Tumwater. Present for the reconsecration of the bones to the Great Spirit were Jobe Charley, Chief of the Yakimas, with Chief Frank Selatsee and Thomas Yallup, at his side. From the Warm Springs reservation came Jerry Bruno, with his silky gray braids and high-crowned hat. From points along tthe Columbia River came Joe Thomas, whose real name is Chewapanni Tomahush, a grandson of old Chief Banaha.

Invocation to the Great Spirit was given, first in Chinook jargon and then translated into English, by Fred U. Robin, Curator at Beacon Rock State Park.

Forgetful that on the very island whence the mortal remains were resurrected, gallant Lieutenant Phil Sheridan and a handful of blue-clad troopers once held off Yakima and Cascade tribesmen in the uprising and massacre of 1856, the Indian speakers told their red-skinned auditors that it was fitting the Army should have arranged the burial and provided the slim granite shaft, for "it was the Army that first made contact with the Indians in establishing law and order."

Mrs. Isabella Underwood, grand-daughter of Chief Banaha and sister-in-law of the founder of Underwood, Washington, was led forward to pull the cord that let the American flag fall away from the face of the gray monument.

Forest Service Lookouts on both the Columbia and Mount Hood National Forests overlook the timbered area where the Indian cemetery is located.

AN EUROPEAN FORESTER LOOKS AT AMERICAN FORESTRY

The following excerpts are from an article (translated), written by Gustav G. Klem, Ph. D., member of the Division of Forest Research, Norway, which appeared in the Aftenposten Norway's leading newspaper, published in Oslo. Dr. Klem visited the Black Hills of South Dakota and the Forest Products Laboratory during the summer of 1937.

"Forestry practice in our sense of the word has only recently begun in the United States. At present, American forestry stands midway between sustained yield on the one side and forest destruction on the other. Somewhat the same thing took place earlier in history in mid-Europe and Scandinavia. The situation in the United States today, however, is only more outstanding and the contrasts larger. In Europe we have never had such rapid forest devastation by man as is found in the United States where the latest modern machinery is used in the destructive process of harvesting. But neither did we, when the first drift from forest 'mining' to sustained yield practice came, have the knowledge of technical forestry and the scientific aids for its practice that the United States now possesses."

In describing his trip to the Black Hills, he said "The first stretch of woods that we drove through resembled a large battlefield. It was denuded of trees, except for a few lone stragglers scattered up over the hills. Some of these had broken tops or were sadly bent over, others were damaged beyond recovery or uprooted, and on the ground were scores of logs that were left as culls. Standing between rocks and brush was a maze of freshly cut stumps, some a half meter in height. 'Heaven help them', I thought, 'if this is a sample of a National Forest.' As we came around a turn in the road through this depressing scene, we heard the clanking of chains and the roar of a powerful engine; then out of the mess that a few months ago was virgin forest came a huge tractor. It tore its way through reproduction and tore down trees of up to 10 to 15 centimeters (1 inch = 2.54 centimeters) D. B. H., and trailed behind it a score of large tree trunks. To my question of whether this part of the forest belonged to a private lumber company, I received an affirmative answer, much to my relief.

"These private concerns own tremendous stretches of the best forests in the country and log more destructively than we can possibly imagine. They fell everything merchantable down to about 25 centimeters D. B. H., build roads or railroads and destructively skid the logs to these with tractors or devastating cable systems; and protection of the reproduction or young forest is not given a thought. This is a tradition handed down from the days when the lumber companies denuded the forest lands and afterward sold them for agricultural purposes. Today the forests are treated in very much the same way, the only difference being that the land is left to shift for itself. The clearing of forest lands for farming is now just about over. But the habit of destructive logging has become so established that it will be a stiff task for the United States Government to change this sluggish mental attitude. The lumber companies are still so powerful and own so much forest that the Government hasn't managed to put a stop to their destructive methods. It is very difficult to get efficient forest laws passed and enforced in the United States."

"Forestry practice in our sense of the word is such a new thing in the United States that the first thinnings in the Black Hills were made only in 1926. But from 1926 to 1936 there were thinned or cut by either the seed tree or selective method, some 800,000 maal, but there is still an area of more than 600,000 maal in need of thinning. This shows, however, the intensive work that is now underway to better guard and improve the National Forests. There is still no control over the privately-owned forests."

"Forest research in the United States is centered around the Forest Experiment Stations. All of these have their own experimental forests, as well as sample plots in the National Forests. The cooperation between the experiment stations and the practical foresters is good. In addition to the experiment stations, the United States has its big wood technology laboratory - The Forest Products Laboratory, in Madison, Wisconsin. There is in the United States a large and most modern Institute of Forest Genetics, whose object is to produce forest tree species with quicker growth without lowering the quality of wood produced, thereby lowering the rotation and increasing wood production.

"As far as wood technology is concerned, the United States is today, after only twenty-seven years of research, among the world's leaders. Most of the credit for this is due the Forest Products Laboratory, started in 1910. When in the future, forestry problems present themselves, we should also turn our eyes toward the United States. Europe is no longer alone in research in this field and the carrying out of results in actual practice. The United States, though beginning relatively late when compared with Europe, has on the other hand the many advantages of a late start. Europe has laboriously and over a long period of time shown the right way, and the United States can in many ways benefit by our results."

(Translated by Wilfred S. Davis, R-2)

DEALING WITH THE PRESS

(Extract from a paper on "Reporting Governmental Activities to the Public" by Merle R. Chessman, Editor, Daily Astorian-Budget, Astoria, Oregon, presented at the Commonwealth Conference, U. of C., March 18-20, 1937).

It is so fundamental as to be almost axiomatic that successful self-government is dependent upon an informed and enlightened electorate; and I believe that there cannot be too close cooperation between public officials and the press in the duty of providing this information. It is the business of both to work to this end. Even if they are not, as they should be, sincerely working for the welfare of their community, then intelligent selfishness would still dictate this cooperation of which I am speaking, for news is the life of a newspaper and it also has a definite relationship to the longevity of an officeholder. Misunderstanding, suspicion, and distrust are like certain vermin in that they breed in darkness; and they are among the greatest plagues of officialdom.

I have scant patience with the public official who is too busy or too dumb to take an interest in putting out the news of his office, who looks upon a reporter as a nosey snooper, and who treats him with indifference or discourtesy. This official is generally the one who comes to the editor and complains about garbled reports and about getting a rotten deal. If I were a public official and had a yen to stay on my job or to advance to a better one, I would never despise the lowly reporter. I might cuss the editor out once in a while or show my contempt for his prejudiced mind and perverse nature; but I would assiduously court and cultivate the reporter on my beat, knowing that he is human with all a human being's instincts and reactions ,that it is his job to get the news out of my office, and that it is good business and good judgment on my part to make his job as easy for him as I can. I would realize that he is going to get the news whether I will it or not; that, left to his own devices, he may get it wrong and do me considerable mischief unwittingly; and that even though he gets it right, he may not give it very sympathetic treatment if I have been rude or boorish with him. I wouldn't ignore or evade his inquiries or regard him as an intruder. I wouldn't refer him to the minute book, the journal or the records and let him dig out a story the best he can from a mass of figures, data, and technical phraseology. I would develop a nose for news in my own office and I would have news ready and waiting for him. I would point out the significant and important points of a complicated report, I would interpret them for him, I would develop in him an understanding so that he may write an intelligent article. I would give him an interview to explain certain matters in my own words. I would make him my instrument in accounting to the public for my stewardship. I would make it a matter of daily duty to give the reporter all the news I have and the background of it, so that he may pass it on to my constituents--realizing that, while I am benefiting him and them, I will probably be myself the greatest beneficiary.

THE EDITOR DISCOVERS

On April 25, Acting Secretary Wilson allotted the Forest Service an additional sum of $20,000 for ERA administrative expenses.

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According to Dr. Stockberger's Personnel Circular No. 63, dated April 25, "An examination of the reports submitted by the bureaus, in accordance with paragraph four of Personnel Circular No. 56, indicates the existence of serious misinterpretations of the authorization for the excusing of the employees from duty on holidays 'when Federal work may not be properly performed'. For example, one bureau reported that employees at a field station were excused from duty because the mayor of the town proclaimed a local holiday due to the opening of the racing season. Another bureau reported that certain offices were closed in various States because the Governors of those States declared local holidays on Armistice Day, November 11. 1937. Another report came in that employees were excused from duty on March 9, 1938, because of a parade in observance of Mother-in-Law Day. In cases like these, no showing was given as to why Federal work could not be properly performed.

"Unless local celebrations or observances of holidays involve the closing of buildings occupied by Department organizations, or the withdrawal of other facilities essential to the performance of official work, such occasions do not constitute acceptable justification for the excusing of the personnel."

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The Yale School of Forestry has recently installed a unique exhibit of more than one hundred Philippine, Bahaman, and American woods, finished in the form and size of books, according to a Yale University news release. The woods were assembled and prepared by Mr. Benjamin W. Arnold, of Albany, N. Y., and have been presented to Yale University by Mrs. Arnold, as a memorial to her husband. Mr. Arnold, a prominent lumber man died on November 8, 1932.

The wood collections of the Yale School of Forestry, which have been assembled under the direction of Professor Samuel J. Record, contain more than 35,000 samples of wood.

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A change in the shape of the tree and of the letters "U. S." on the Forest Service shield was recently approved by the Chief. Existing shields on signs, stationery or elsewhere need not be changed, but as replacements are made it is mandatory that all new shields be in accordance with the new standard.

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Net National Forest receipts for the period July 1, 1937, to March 31, 1938 totaled $3,080,096.56, an increase of $71,008.61 over the same period last fiscal year. Totals by Regions are as follows:

R-1 - $264,594.95, a decrease of $22,606.15 for same period last fiscal year
R-2 - $477,086.49, an increase of $49,326.51 " " " " " "
R-3 - $413,680.82, an increase of $135,103.78 " " " " " "
R-4 - $266,924.38, a decrease of $12,756.20 " " " " " "
R-5 - $490,402.60, a decrease of $5,586.37 " " " " " "
R-6 - $591,888.77, a decrease of $121,232.53 " " " " " "
R-7 - $92,855.97, an increase of $9,187.51 " " " " " "
R-8 - $332,243.68, a decrease of $10,223.06 " " " " " "
R-9 - $105,681.38, an increase of $44,774.47 " " " " " "
R-10- $44,737.52 - an increase of $5,020.65 " " " " " "

Activities showing the greatest returns were: timber sales - $1,946,321.59, a decrease of $13,012.47 for same period last year; grazing - $649,530.04, an increase of $45,559.52 over same period last year; special uses - $330,464.00, an increase of $25,923.57 over same period last year; water power - $83,212.91, an increase of $15,400.77 over same period last year; forest products sales - $40,843.88, an increase of $6,416.27 over same period last year.

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During 1937, a total of 90,131 CCC enrollees received discharges to accept outside jobs, or an average of 7,510 per month. July was the peak month when 13,865 left. The smallest number, 1,904, left in December. The number of enrollees discharged on account of physical disability during that year was 6,839.

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Administration of the 240,000-acre Northeast Washington Land Utilization Project was transferred from the Farm Security Administration to the Forest Service by Administrative Order signed by Acting Secretary Brown on April 28. These lands are adjacent to and will be administered by the Kaniksu National Forest. Approximately 40,000 acres within the area will be maintained as a wildlife refuge under the supervision of the Biological Survey.

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The Washington Office of Drafting advises that they have found a very satisfactory method of keeping mimeograph stencils from tearing and making rough, broad strokes when handwork such as drafting, signatures, etc. is to be done on them. By placing a piece of ordinary cellophane, such as comes from a cigarette package or candy box, over the stencil a signature or drawing may be made on the stencil with a stylus or a sharp pencil with resulting clear,sharp lines.

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Effective July 1, Dr. William G. McGinnies is being transferred from the Soil Conservation Service to the Forest Service to take charge of range research for the Southwestern Forest and Range Experiment Station.

In 1917 to 1918 Dr. McGinnies served as forest guard and technical assistant in the Forest Service and later advanced through the grades of ranger and grazing assistant to assistant range examiner, with experience gained both in Montana and the Southwest. He left the Forest Service in 1926 to become associate professor in range management at the Arizona Agricultural College and Experiment Station and was later placed in charge of the department of botany. In these positions he made outstanding contributions to methodology of range research and developed a number of important principles applicable to southwestern ranges. As regional director for the Soil Conservation Service, Dr. McGinnies helped to apply improved range management on the Navajo Indian Reservation.

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The transfer of John H. Sieker, Supervisor of the Shoshone National Forest, to the position of Assistant Chief in the Division of Recreation and Lands in the Washington Office has been approved, effective June 1.

Mr. Sieker has devoted considerable time to recreational problems on National Forests, especially in connection with "Dude Ranching", primitive areas, and camp ground development, and his twelve years of experience in these and other western forest problems will be invaluable to him in connection with his new duties. He was appointed to the position of Forest Ranger on July 2, 1926, on the Washakie National Forest, Wyoming. He later served in the same capacity on the Chippewa Forest in Minnesota and the Black Hills Forest in South Dakota. He was also Junior Forester and Assistant Supervisor on the Harney Forest. On January 8, 1936, he was selected as Supervisor of the Shoshone. He is a graduate of Yale forest School

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Mr. Carl S. Clancy has entered on probationary appointment in the Division of I & E as director of motion pictures. Mr. Clancy has just returned from Egypt where he took colored movies of the coronation and wedding of the King. He has had several years experience as a free lance motion picture producer in New York, making pictures principally of industrial and short subjects. He succeeds W. A. Luey, who has been working for I & E for the past several months.

BIOLOGICAL SURVEY NAMES NEW DIRECTOR FOR NORTHEASTERN REGION

S. B. Locke, for more than six years conservation director for the Izaak Walton League of America, has been appointed regional director of Federal wildlife work in the Biological Survey's northeastern region. Headquarters for the region are being moved from Portland, Maine, to Boston, Mass., a more central location for the region, which includes Delaware, New Jersey, Pennsylvania, and New York in addition to the New England States. Bertrand E. Smith, present regional director, will continue as assistant director of the region.

Mr. Locke, a native of West Paris, Maine, and a graduate of the University of Maine with a B. S. degree in forestry in 1908, was previously employed by the Biological Survey, going from the Survey to the Izaak Walton League in 1931. He transferred to the Biological Survey from the U. S. Forest Service in 1930, where he had served in various capacities for more than 20 years. - Department of Agriculture Press Release.

IN THE LOOKOUT TOWER

By Everett W. Hill, Oklahoma City

(Written in the Winding Stair Mountains of Southeastern Oklahoma after a visit with Mike Dorsey, in Charge of the Blue Mountain Tower)

Ranger, what do you think
When heavens throb, and mountains reverberate
thunder's roar,
When streaks of fire are hurled from clouds and
rain begins to pour?
What do you think?

Ranger, what do you do
When mighty winds attack your tower, shrieking in
fury bent,
Throwing gusts of hate at men until their violence
is spent?
What do you do?

Ranger, what do you hear
In still of night with skies ablaze under millions
of stars,
With earth no longer visible? Do you listen to
Mars?
What do you hear?

Ranger what do you see
When rays of dawn sweep the earth and give promise
of day?
Does the beauty of morn inspire, or is it mere display?
What do you see?

Ranger, what do you say?
Do you like your home in the skies away from worldy
strife,
Or would you rather walk the earth and take a chance
on life?
What do you say?

(The author writes us that "As a vagabond along the trails which lead through forests as well as plains, I have met many of your Rangers and always found them gentlemen and interesting associates in passing. Your service is excellent and is to be commended." - Ed.)

TRAINING INCREASES CCC PLANTING OUTPUT

The enrollee training program stepped up planting production and enabled Camp F-8, Mississippi, to set out 5,160,000 trees in a ten-week planting season. During the first ,or training week, the camp averaged only 365 trees per man day. This low output was soon overcome when the training started to show results, and during the final week 1,721 trees per man day were planted. Quality was not sacrificed for quantity output; Washington Office and Regional inspectors searched in vain for evidence of poor planting. - H. R. Kylie

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SERVICE BULLETIN
CONTENTS CONFIDENTIAL

> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES. IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT xxx THE TIME HAS COME FOR A CHANGE. AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY xxxx TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES, WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER.
>
> Theodore Roosevelt

Vol. XXII No. 11 Washington, D. C. May 30, 1938

SILCOX STRESSES NEED FOR DEMOCRACY IN NATIONAL FOREST POLICY

Opening the important panel discussion of public regulation of private forest land, at the Annual Meeting of the American Forestry Association, over which Philip W. Ayres, of New York, a director of the Association, presided, Mr. Silcox called for a democratic process in laying the foundations for a broader and more effective national forest policy.

"The most precious thing to be preserved is the democratic process", he said, "and this can be achieved, in arriving at a national forest policy, by starting at the bottom and working toward the top. By this I mean, more specifically, starting with the forest-land owners themselves, and working up through the counties, the States, and the Federal Government, cooperating all the way."

Cooperation with private owners was the first thing in a three-point program for a national forest policy set forth by Mr. Silcox. The other two were public regulation of private forest lands, and increased public ownership.

"The National Forests are valuable and worth-while properties," he said, "but they supply only about 4 or 5 percent of the timber we are using. The pattern of private forest lands, from which some 95 percent of our timber requirements still come, is here, and must be dealt with in a practical and realistic way," he continued. "But to protect private owners who are really trying to meet their responsibilities, as well as to protect the common interests, I am convinced that some form of public regulation is also necessary. And, unless private ownership as a whole cooperates, and redeems its responsibilities, public ownership must prevail."

Mr. Silcox pointed to the Lake States and other regions to illustrate that the Nation cannot continue to drain its timber and soil resources for conversion into so-called wealth, as such. "There is a definite responsibility to prevent continuation of this type of land use. With one-third of the people on relief, our resources - including our forest lands - must be used to underwrite communities with a greater degree of security and stability."

Speaking of regulation, Silcox said that while some private owners will observe self-imposed rules, there are always others who will not. "In regulating traffic we put a traffic cop at the corner. With orderly regulation, to which no thoughtful person now objects, we and our children are safer, and have a greater sense of freedom in operating our automobiles. In operating private forest lands, just as in operating through traffic, sovereignty lodged in government is now necessary in order to control the group that will not otherwise conform to present-day conditions and needs. And like the automobilist who observes the traffic rules, private owners who properly manage their forest properties will have nothing to fear from regulation within the democratic pattern. The individual private owner is, after all, only transitory in the life of the Nation. The liquidation owner and the sustained-yield owner cannot long exist side by side. In the last analysis, forest regulation will affect only those forest properties that are still operated under the liquidation process."

Regulation, Silcox said, whether it be State or Federal or a combination of the two, must come as a result of rules openly arrived at, and must reflect the needs of the particular group involved. He advocated a basic set-up, around and on which to build in order successfully to meet the different conditions in different States and forest regions. The States, he declared, can best handle intra-state problems, but there must be cooperation between the States, and with the Federal Government, to handle inter-state problems.

"One group of competitors cannot successfully control another group of competitors in the same field. The seeds of failure are inherent in any such set-up. Industry must have a hand in writing the rules, and I hope it will be a real and a helpful hand, for Democracy stops when we get a greater flow from the top than from the bottom. We must guard the right of appeal, but there must be sovereignty, and the elective line must be kept clear of the administrative one. Before regulatory measures are considered by Congress", Silcox added, "the Joint Committee should explore the whole forest problem, and hold public hearings; start at the bottom, and follow the democratic process. As a Nation we've shown our ability to do this in other fields, and my belief is that we can and will show the same ability in arriving at a broader, a more effective, and a more constructive national forest policy."

"THE OLD RANGER SPEAKS"

By Lee P. Brown, R. 2

Reference is made to Mr. Moir's article on range management in the April 18 issue of the Bulletin. It seems to be the passing style for range experts, vested stockmen, and others to take potshots at range management. Claims and counterclaims are made. Solutions are as varied as the viewpoints of the critics. About the only agreement seems to be that the Forest ranges are in or are getting in an unsatisfactory condition and that something should be done about it. Most of the criticism ultimately appears to be charged against the district ranger's sins of commission or omission, as the actual manager of the utilization of the grazing resource.

It was my privilege to sit in on a ranger conference during the past month. The average length of service of these men was twenty years; they were all men of the old school. Most of them were born on western ranches and were, you might say, raised on the range. Several of them said they had no recollection of learning to ride; they had ridden ever since the beginning of their memory. They have been and are intimately concerned with the stock industry and range. They know the stockman as a brother and neighbor as well as a permittee. So the ideas presented here are not those of a novitiate, nor of one man, but are reported as a composite of the group.

Perhaps when the stockman and the range expert have had their say the ranger may have something to add. So in the vernacular of the radio, "The Old Ranger Speaks."

"We might as well admit that much of what Mr. Moir says is true. The thing that bothers us oldtimers most is that we no longer have the time to squat in the corral dust with our permittees and swap yarns and tobacco. These new high pressure work plans and efficiency waves don't permit it. But just the same when we used to idle an occasional hour this way and when we used to make the roundups and help with the cutting and the branding we learned a lot of things. We used to know what the stockmen were thinking, how many cattle they had, where they ran them, and all that sort of thing. We don't any more. We just have to take their word for it,--if they choose to tell us. The stockman doesn't like this state of affairs and neither do we.

"Left to our own inclination, we would give most of our time to range management, because we know most about it and we like it. We used to do it too -- perhaps too much so -- until the work planners scheduled us. We can get over our ranges provided no exigencies arise and provided we ride a good horse and take it on the high lope.

"We are all crowded for time and it's only natural for a fellow to let the things slide which have the least immediate effect on his job. We must scale logs to keep the mills running, we must spend the moneys allotted to us and keep our financial control records, we must plan and supervise improvements under construction, we must control the fires, and, last but not least, we must keep an endless string of reports headed for the Supervisor's office and the closed files. Under these conditions range management suffers, -- in spite of the fact that the more heavily used ranges of today require closer study than ever before, if that nice balance of complete utilization without overgrazing is to be maintained."

The ranger continues. "Be that as it may, young fellow, you don't catch any of us oldtimers trying to tell a big shot inspector that we were too busy with range inspection or range plan revisions to get our trails maintained, or the new telephone line built right up to the latest standard, or the barn painted two coats of the new standard color, or that we failed to wet nurse the ERA crew and ride close herd on the campground improvement work they were doing because we felt it more important to ride some 300,000 acres of cattle and sheep range on our district. It just isn't done; leastways, we oldtimers have never seen the fellow who could do it and get away with it.

"Range inspectors make up a mighty small proportion of the whole bunch. Maybe these new integrated inspections will do something about it and maybe they'll be just another inspection.

"And perhaps we are using good judgment in neglecting range management, because in many cases we can't do anything about it anyway. Oh, I know that sounds like rank heresy but from our point of view it's just about the God's awful truth.

"Let's sort of review the situation. Originally our ranges were largely underutilized and the Service sought customers in order to get the range fully utilized. During the war stock were crowded on to the range as an emergency measure. Overgrazing in places was permitted, if not encouraged. Following the war, loss of markets created another emergency. This was followed by another, including a protracted series of drouths. But during all these emergencies grazing preferences, built up through our system of preference grants and priorities, were very difficult to reduce.

"Forest officers have had a constant struggle trying to comply with restrictions against cutting preferences and reducing the number of stock run on the range to conform to the number the diminishing capacity of the range will carry. It's a rare day when the two match. And during all this time we rangers have been nearest to the stockman and have felt and sympathized with his personal needs and desires. So if we've been slow, just chalk it up against our human fraility but don't forget that we have been subject to pressure from without and within and from above to concede to the social and economic needs of the stock industry (which has rarely been farsighted, altruistic, or unselfish in its viewpoint). All officers, including our superiors, have at times advocated concessions to local needs which their vision and better judgment told them were unwise, both for the range and for the stock industry.

"Meanwhile, the stockmen in many places have become adept at 'turning on the heat'. They can just about create emergencies at will. They have learned to evade regulations. Grazing trespass is in some places a serious problem. Reductions in permitted stock have not always meant a corresponding reduction in the number actually grazed. Some of us old-timers hesitate to recommend reductions because we know that it just means reducing fees but not the stock grazed.

"Now don't get us wrong," continues the old ranger. "We are not accusing all stockmen; the average run of them are pretty dependable squareshooters. But as in everything else the chiseller causes most of the trouble. One stockman evades the regulations and his neighbors feel they must, in order to get their share of the grass. You know the Westerner is raised in the tradition of keeping his mouth shut and taking care of number one; he doesn't tattle on his neighbor.

"Time was" continued the oldtimer, "when we rode enough to get next to those few skunks that were up to devilment, but it's not so today. The result is we've got a headache in range management we can't cure. But that is not all there is to the picture, not by a longshot. I know some conscientious rangers who honestly tried to correct overgrazed conditions on their districts and they've been baffled and balked in their efforts by the combination of circumstances and conditions under which grazing permits are issued and trespass proceedings work.

"One way to cure a good part of this trouble would be to make the grazing permit a signed legal agreement containing limitations and heavy penalties for violations, the same, for example, as a timber sale agreement. At present the timber operator is responsible for living up to the terms of his agreement and there are enough teeth in the contract papers to bring him to time or eliminate him if he doesn't. On the other hand, the grazing permittee may or may not live up to the terms of his permit; it is the ranger's responsibility to catch him if he can and having caught him there is all too frequently little, if any, penalty of a serious nature attached. Nearly every ranger district has its chronic range trespasser who scoffs at the impotence of the local ranger to do anything about it. And he sure raises merry hell with the point of view of the ranger and with the desires of his neighbors for good range management. Would these chronic trespassers persist if their regular permit could be cancelled, as in the case of a timber sale agreement? Would they trespass if trespass meant paying double or triple the grazing fee? As it is, grazing trespass doesn't penalize the trespasser or correct the trouble; we get a little money for a great deal of hard work and expense because they do something that damages the range.

"If we rangers could get some effective weapons to use on those stockmen who are chisellers (who want and who are getting something for nothing), a large part of our range problem will take care of itself. If the Forest Service is going to broaden its policies for the benefit of the stockman, why not insist that he assume a reasonable amount of personal responsibility in his use of the range for compliance with our regulations and then make the penalties heavy enough to be felt when he chisels?

"Figuratively speaking, we oldtimers can be trusted to break and handle horses gently but we don't like to have to mount an outlaw without spurs."

RANGER ENGLES HONORED

By Emma H. Morton, R. 6

"As long as the story of the tragedy on Mount Hood Sunday (March 27) that took the life of Roy Varney is recalled, the heroic role that Forest Ranger Harold Engles and three assistants enacted will be a highlight." (The Oregon Journal)

In recognition of bravery and devotion to duty the Regional Forester, on behalf of the Forest Service, has written a letter of commendation to Ranger Engles.

When word was received at Timberline Lodge that Roy Varney, who had been in charge of a Mazama climbing party, had collapsed and been left on the mountain in a blizzard, Ranger Engles was called. Although he had spent most of the day (March 27) in the supervision of skiing activities in the Ski Bowl at Multorpor, upon receiving word of the plight of Varney, he left immediately for Timberline Lodge and assembled a small rescue party consisting of Junior Forester Maxwell E. Becker, Forest Guard Henry Lewis, and Henry Corbdet, a member of the Mount Hood Ski Patrol.

After getting together blankets, ropes, restoratives, and other necessary equipment, Engles with his party left the Lodge at 4:30 o'clock in the afternoon in a blinding storm. Eventually Varney was found, partially covered with snow, badly frozen and near death. Hot packs and blankets were applied, an improvised sled of four skis lashed together was made, and the men started back with their unconscious burden. As Lewis and Corbett had given up their skis to make the sled they had great difficulty in walking, floundering sometimes hip deep in the snow. After a desperate struggle through darkness, snow, and storm during which they almost lost their lives, they succeeded in reaching Timberline Lodge at 8:15 p.m.

Even then, though he had put in a strenuous day on the mountain followed by the grim four-hour struggle through the storm, Ranger Engles refused to rest. He and his party worked until nearly 2 o'clock the following (Monday) morning in what proved a futile effort to revive Mr. Varney.

When word reached Engles about midnight on Monday that another member of the Mazama party had not been accounted for, he returned to the Lodge early Tuesday morning and organized a party of searchers consisting of more than 50 experienced mountaineers. Three more days of ceaseless activity on the snowy slopes of Mount Hood followed before the lifeless body of Russell Gueffroy was discovered and brought to the Summit Guard Station.

It is men like Engles, Becker, and Lewis who have made the history and traditions of the Forest Service something of which we can be proud.

FORESTRY BY THE SQUARE ROD

By Thornton T. Munger, Pacific Northwest For. Expt. Sta.

Professor Fisher used to tell his students on the Harvard Forest that forestry should be practiced by the square rod, not by the acre or the compartment. This is a very wise saying and one that all foresters may well ponder. He meant that any silvicultural operation, such as harvesting, thinning, or planting, dealt primarily with the individual tree or the particular small spot of ground that was being treated. In making a thinning or a selection cutting the character and spacing of the trees on each individual square rod must be considered rather than the average conditions on the whole square mile. In disposing of slash, for example, by piling and burning, the forester should not apply a "cut and dried" practice to a whole section, but modify it from square rod to square rod, sometimes leaving the slash undisposed, sometimes making small piles, sometimes large. The amount and character of the slash, the presence or absence of reproduction, the undergrowth, all give infinite variation from one spot of ground to the next and the skillful silviculturist will vary his practice to get the best results on each square rod.

In making a selection cutting the unwisdom of blanket rules, such as inflexible diameter limits or arbitrary volume percentages of cut, is well recognized. The single tree method and the maturity selection system are forestry by the square rod, for by them the forester should analyze each tree before it is selected for cutting, -- its mortality probability, its volume and value increment, its present value, its cost of conversion, in order that he may be sure to put every fractional piece of every acre into most productive bearing and market his crop most profitably.

When an area is being considered for planting it isn't the average number of trees per acre that determines to what degree the tract is stocked. It is the number of square rods that are stocked or nonstocked. That is why the stocked quadrat method of classifying land is good forestry--for it involves inventorying young growth by a unit of area that means something in practical silvicultural terms.

Foresters in the western United States have been handicapped in having to deal with large areas and do things in a big way; this inevitably led to standardized methods and set practices.

We should speed the day when the silviculturist will look at the forest not as a homogeneous mass but as a complex of varied individuals and much diversified spots of ground. Then he must become so expert that he will really know what an individual tree needs, -- when it is economically and silviculturally ripe for harvest, when it needs more light. He will have his inventory in such form that the minority spots of ground will get the best treatment and not be subjected to the same treatment that suits the majority or the average condition on the tract.

This sounds very obvious but are we yet really practicing forestry by the square rod?

GRASSLAND IMPROVEMENT

By John H. Hatton, Washington

In Bulletin No. 3 Ministry of Agriculture and Fisheries, "The Improvement of Grassland" by Professor J. A. Hanley, King's College, Newcastle-upon-Tyne, 1937, the following is quoted from a manifesto "recently issued by the Ministry:"

"Grassland improvement means better grass, more grass, and a longer grazing season; it means more stock, better and healthier stock, and smaller bills for feeding stuffs."

While the above statement may be said to be axiomatically applicable to National Forest range management, coming from a country that has spent centuries in intensive pasture land improvement even to plowing, crop and pasture rotation, and the use of fertilizers, we can take courage in our objectives toward well doing from our remote ancestors.

The Bulletin lists 99 selections of literature on this subject and related subjects.

Quoting further from the bulletin we have:

"New and progressive methods of grassland husbandry are vitally concerned with 'Management.' The application of mere fertilizers to grassland is useless unless supplemented by enlightened methods of utilizing the produce."

THE EDITOR DISCOVERS

The following is a summary of the idea expressed by Mr. Silcox during the discussion of the work of the Division of I & E at the staff meeting on April 22:

It is hoped that in our informational and educational work we will not become so absorbed in detail as to lose sight of the broad social and economic objectives of the Forest Service. While it is recognized that facts and details are the "tools" of information work, and the media by which information is presented, we should attempt as far as possible to point up our facts and details toward emphasis of fundamental concepts:

1. That forestry is a means of bringing increased stability of employment, sounder communities, and a better life and improved standard of living generally for the people throughout the forest regions; and

2. That our forest problems must be worked out by democratic processes, with all citizens having a voice and share in determining and carrying out policies in accordance with the democratic ideal.

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Plans are under way for a series of detailed flood-control surveys of watersheds where preliminary examinations or other information has shown that a flood problem exists which can be corrected in part through up-stream control. Surveys contemplated include a number of important watersheds in different parts of the country. These surveys are joint affairs in which the Soil Conservation Service, Bureau of Agricultural Economics, and the Forest Service participate.

This enlarged program also contemplates preliminary examinations of a considerable number of watersheds authorized by Congress. This work is made possible by the Senate's approval of the bill for the civil activities of the War Department, which carries $3,000,000 for preliminary examinations and surveys by the Department of Agriculture. In this same bill the Senate also earmarked four million dollars for up-stream flood control operations by the Department of Agriculture. If this latter item is retained in conference, the Department of Agriculture will be recognized for the first time as an active participant in flood control operations.

As the result of its recent hearings, the House Committee on Flood Control has under advisement a number of amendments to the flood control act of 1936 which establishes a national flood control policy. Amendments which it is understood the committee is now considering would authorize examinations and surveys of a considerable number of drainages not included in previous legislation, and would authorize a specific action program by the Department.

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Another call from the Secretary's office for information which could only be obtained from the work project inventories was received recently. The data desired were for use before committees in Congress and were furnished within two days' time. The estimates submitted in response to the request included 34,000 man-years of work on an ERA basis and 75,000 man-years of work on a PWA basis. The cost of employing 34,000 men on the ERA basis was estimated at $25,704,000. On the PWA basis the total cost for the 75,000 man-years of employment was $93,000,000.

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Permanent supervision of the West Alabama Land Use Project has been assigned to the Forest Service as a concluding step in the land utilization program of the former Resettlement Administration in this area. By Presidential Proclamation, signed by President Roosevelt on May 11, the boundaries of the Talladega National Forest have been extended to include lands in this project, which comprises 87,218 acres in Bibb, Hale, Perry, and Tuscaloosa Counties.

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Attention was recently called by the Department to paragraph 1834 of the regulations which requires that all motor vehicles shall at all times be marked, on both sides, by a union shield with the lettering "U. S. Department of Agriculture" in the center, followed by the name of the Bureau, if desired.

In view of the fact that the Forest Service shield - containing a pine tree and the letters "U. S." in the center and the words "Forest Service" at the top and "Department of Agriculture" at the bottom - has been used for a number of years and has become quite well known to the public, permission was requested to continue its use on motor equipment used outside of the District of Columbia. This request has been approved by the Acting Secretary.

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The consolidated "Sheet A" - Fire Control Statistics for the Calendar Year 1937 show that during that period there were employed and paid from regular funds 4,094 fire guards and 2,094 paid from FFF (deficiency funds). There is probably some duplication in these two figures which indicate that at least 5,000 different individuals - other than CCC and ERA workers - were employed as fire guards last season. In addition 1527 CCC and ERA workers served as fire guards during the same period. This shows a total of between 6500 and 7500 different fire guards on duty for some period in 1937.

The maximum number of temporary fire fighters totalled 29,143, of which 18,201 were CCC and ERA workers.

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R. F. Hammatt, who recently visited the Arkansas State Forester's office, tells of some interesting examples of the use being made of relief workers by that office. For instance, WPA men have made and are making many kinds of maps, including district ranger maps and lookout maps for fire control, and, according to Gillett's assistant in charge of fire control, the maps are neatly prepared, accurate, and usable. Night classes of instruction for men interested in map making are held by the engineering section. As a result of such training and work, four WPA men have passed State civil service as draftsmen, and one of them has received permanent appointment. Another WPA project covers a State census of wood-using industries, which is now under way.

The State Forester's office is also using NYA boys in mapping work, with good results, and in fire control. Ten lookout towers have already been manned by these men, and this number is expected to be increased in the near future. A crew of 5 men is assigned to each station. These crews are rationed and paid by the NYA. The ranger in whose district each crew works is responsible for the crew, including distribution of rations. Duties of individuals of the crew are rotated among the boys as between (1) tower duty, (2) ranger duty, (3) cook, (4) study and gardening, and (5) free time. Correspondence courses are furnished for the day devoted to study and gardening. The work of these crews is reported to be very satisfactory.

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DEAD BUT NOT BURIED

By C. R. Randall, Washington

Threadbare and rusty are many terms used to excess by American foresters. Some of these terms have become trite through being overworked. Others are vague in the minds of the average person. New words, new terms, and new expressions are needed to replace those that are hackneyed, frayed, worn out, commonplace, generalized, or not clear to Johnny Q. The first on the list is the worst offender. The word is CONSERVATION. Who has a substitute? Who will supply a word to replace this one, which will carry the full meaning when applied to national resources, or possibly, to forest resources. Burial services will be in order for Old Man Conservation when the new word is found.

MAP COLORING

A new technique of coloring maps by means of transparent photo oils was developed for use on the Western Range Survey type maps by Dr. W. P. Cottam of the Intermountain Station which gives promise of wide use. Certain advantages of this method over the old crayon method of coloring are:

(1) a saving of time, (2) greater brilliance, (3) greater transparency, (4) a more even distribution of color, and (5) less expense.

Photo oils are diluted to the desired consistency with turpentine and are applied with an absorbent cotton stomp rolled with the fingers to the desired size, depending on the size of the area to be colored. No treatment of the map surface is necessary and cloth maps, especially, give very satisfactory results. The following table shows the color equivalents for the standard crayons.

1. Short grass	Mongol	817	–	Oil,	Yellow K*
2. Meadow	"	862	–	"	Orange K
3. Weed (perennial)	"	866	–	"	Scarlet K
4. Sagebrush	"	893	–	"	Sepia M*
5. Browse	"	888	–	"	Tree Green M
6. Conifer	"	858	–	"	Dark Green K
7. Waste	"	898	–	"	Viridian M
8. Barren		Blank	–		Blank
9. Pinon-juniper	"	848	–	"	Oxide Green M
10. Broadleaf trees	"	846	–	"	Rose K
11. Creosote	"	855	–	"	Chinese Blue K
12. Mesquite	"	853	–	"	Raw Sienna K
13. Salt brush	"	819	–	"	Neutral gray K
14. Greasewood	"	864	–	"	Violet K
15. Winterfat	"	813	–	"	Warm Brown K
16. Desert shrub	"	863	–	"	Cobalt violet M
17. Half shrub	"	844	–	"	Cobalt violet M
18. Annuals	"	876	–	"	Carmine M
19. Mountain meadow	"	845	–	"	Sky Blue M

*K = Eastman Kodak Photo Oils. *M = Marshall's colors.

After the color is applied a dry cotton stomp is used to spread the color evenly. The oil colors are easily removed by an ordinary eraser on small areas, or by turpentine on larger ones. A little practice will soon teach the operator these and other tricks in photo oil application. - Monthly Report of the Intermountain Forest and Range Experiment Station, January, 1938.

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SERVICE BULLETIN
CONTENTS CONFIDENTIAL

WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES. IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT xxx THE TIME HAS COME FOR A CHANGE AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY xxx TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES. WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER Theodore Roosevelt

Vol. XXII No. 12 Washington, D. C. June 13, 1938

A LETTER FROM A RANGER

By Gordon D. Harp, Grand Mesa

After reading "A Letter of Criticism" in the Service Bulletin, (March 7 and 21 issue) I felt that it could very aptly apply to my own district so far as results go. It is also true of others and I cannot feel that the blame is entirely with the Rangers. We are trying to apply mass production methods to a job they do not fit and carrying a load of work that makes the very things that both the stockmen and the Forest Service want unattainable.

My training both in school and out was primarily for grazing administration. I was raised on a ranch and the people with whom I grew up were ranchmen. I have worked for ranchmen, run stock for myself and have almost without interruption been working with livestock in some capacity since I was large enough to straddle a horse. I can talk a ranchman's talk, ride their horses, make a fair hand on a round-up, and see things from their side sometimes more easily than I can our own. Now I find myself fitted for a job which temporarily at least has been crowded into near oblivion.

I did all of these things in 1932 and to a lesser extent in 1933, with results that were gratifying. At that time I had about 6,700 head of cattle, considerable recreation of a local nature, five old campgrounds that consisted of little more than a sign, two toilets, and a garbage pit, one small sawmill cutting around 30 M. ft. b. m., and a large number of special uses. I shared a guard with the Lakes District and the recreational use required little attention.

Since that time we have been engaged in a heavy development program. We have built roads, trails, telephone lines, water systems, campgrounds, retaining ponds, ski courses, drift fences, buildings, and numerous other improvements, and are still going strong. I still have most of my cattle, a few more special uses, five sawmills cutting about 500 M. ft. b.m., a greatly increased recreational use, and in addition the maintenance of all the improvements already built, as well as the supervision of those that will be constructed.

Grazing work has gradually slipped from a major activity until last year during the five months' season only 180 out of 1,025 hours worked were charged to grazing. Forty-nine of these were spent during the first half of June when the stock was going on, and fifty-nine in September, the latter principally on grazing applications. Only 31 hours were spent on grazing during July and August, the two months when the best results can be obtained. I have watched a good start fade into nothing and this year recommended cuts in permits which could have been avoided with adequate supervision. They are a monument to a failure on my part but I cannot feel entirely responsible. Conditions over which I had no control forced neglect. I have watched one good group of permittees lose interest because they felt that I had. It will be much more difficult to arouse their enthusiasm a second time than it was the first.

For four years I have kept horses, two at my own expense, that I have not used. I have kept them partly for sentimental reasons and partly in a vain hope that conditions might change so that I could again get back to the work that I like and understand best. This change has not materialized and the only one that I anticipate for the coming season is not for the best interests of grazing. I still believe that I can get results in grazing administration but only in proportion to the time that I can devote to it. It is only a matter of confidence in the Ranger with the permittees, and the education of the permittees on the part of the Ranger. A sympathetic attitude and a fair mind are essential but not enough. Range management is a thing to be sold - not crammed down their throats. It takes time and work and talking to get results. You can no more expect to get results by handing a management plan to a bunch of cowmen than you can by giving a marking policy to a sawmill man and telling him to go to it.

A glance through a service directory now and one for several years ago shows a marked increase in the Supervisors and Regional Office forces, both clerical and supervisory, but little on the ranger districts. In spite of the increased work load, I still have my half time guard, I hope, and an elaborate work plan, which instead of showing how to get the work done only provides for an orderly elimination of jobs for which I have no time. Judging from past experience, grazing - at least that part that makes for more friendly relations between permittees and the Forest Service - will be listed under the column headed "Gone but not forgotten." - R-2 Bulletin

IMPRESSIONS OF THE SHELTERBELT

By R. F. Hammatt, Washington

I have seen photographs taken of Shelterbelt operations, and read reports about results and progress, for some time. Both these media have been optomistic, but for some reason they didn't particularly enthuse me. Last month I saw the Shelterbelt area; a cross section from Lincoln south through Nebraska, Kansas, Oklahoma, and Texas.

Summarized, my impression is that a difficult job has been well done; that farmers themselves, and most local communities, believe in the job and in results obtained. So firm is this impression that I cannot understand why this feeling within the Shelterbelt area is not more positively reflected in the Congress.

To Forest Officers who have not actually seen Shelterbelt operations, the following general observations may, perhaps, be of interest.

Interest in Nebraska centered first on the large number of trees set out in the period 1878-80, as a result of the Timber Culture Act. The next definite impressions: little has been planted in that section since that time and the start of the Shelterbelt work in 1935; many of the older plantations are now in poor shape, probably owing to maturity of the trees planted (chiefly cottonwood), extended and recent periods of drought, and cuttings for firewood and immediate cash incomes. I saw no Clarke-McNary plantings; got the distinct impression that such plantings are difficult if not almost impossible to find. In Kansas, Oklahoma and Texas settlement took place subsequent to repeal of the Timber Culture Act. Old plantations are very much less in evidence.

Shelterbelt planting is on crop lands, within specified limits of precipitation. My impression is that better growth and survival have been obtained on sandy soils; that planting is being concentrated, rather than scattered (this seems good business). Cottonwoods 16 feet high, in 1935 plantations, are not uncommon, though that figure does not represent an average. Cottonwood planted in 1936 - with 2 summers growth - now 12 feet high, is not uncommon.

Paducah, Texas, thinks so much of the Shelterbelt that the town turned over its (clay surfaced) municipal tennis courts to serve as a heel-in bed for nursery stock. This town is near a problem area of some 35 square miles, within which wind erosion is so acute that most tenants moved out last year. Present residents are almost entirely owners who cannot liquidate their investments. The principal crop is cotton. When the land was first put under cultivation, the crop averaged 2 bales per acre. It now averages 1/6 bale per acre; is often necessary to plant 3 or 4 times in order to secure even this.

This problem area is gradually extending toward the town mentioned; has already hurt the business of Paducah merchants. Within the area is a shelterbelt, planted by one farmer from cottonwood cuttings transported by horseback to the land, in 1917. This shelterbelt, now "full grown", has made possible an orchard of peach, apple, pear, and apricot trees that bear pretty regularly; the only one in this neighborhood. This orchard furnishes the necessary cash crop; people come from miles around for the fruit, which is sold for $1 per bushel, no more and no less. The rancher says his place is the only one in Motley County where a wrench can be thrown on the ground and be found again, 3 days later.

On one 98,000 acre concentration area in Texas, of which 75,000 acres are in production (chiefly cotton), there have been planted in the past 2 years 230 miles of basic Shelterbelt. It is said this practically completes the basic planting in this area.

Belief in and enthusiasm for the Shelterbelt project is universal among Shelterbelt personnel. This feeling has extended to farmers and local communities. It is also evident among the planting crews. One PWA worker said "I was one of the crew that made the first Shelterbelt planting in this State. I thought it was a crazy idea. This year I've eaten my lunch under the shade of trees I planted in 1935 - and this was the only shade for miles around. That's what I think of the Shelterbelt."

Shelterbelt plantings have real values, tangible values, measurable values. They also have intangible values that may well outweigh the measurable ones. Besides making it possible to make a living there, they make living more endurable, and more pleasant. Let's keep up the good work.

"US FEDERALS"

By Fred Cleator, R. 6

Jasper Taylor was an early day Forest Ranger on the Orient District, Colville Forest. What he didn't know about cedar was hardly worth knowing, except that he couldn't spell it. It is incidental but interesting to know that in one report he tried three different ways of spelling cedar, none correct.

About the year 1912, Jasper had trouble with a certain cedar pole purchaser who chiseled all the Ranger's "U.S." marks from the butts of a certain lot of poles, insisting he had paid for 'em and didn't propose to have any such "monkey shines" by foresters.

In the capacity of Deputy Supervisor, I was sent over to negotiate an armistice. Jasper said the only way to negotiate it was to hog-tie the purchaser and rebrand his poles. Since the purchaser had a liberal assortment of shot guns, pistols, rifles, axes, and other small arms, I was for letting him get away with his funny idea, but the Ranger prevailed. He was mad clear through.

So the next day we picked up a forest guard for luck, saddled horses and proceeded to the cedar buyer's cabin. At a specified time, while the Ranger was presenting facts to this back country cedar magnate, the guard and I made a concerted tackle and pinned him to his own front porch. While we sat on him, Ranger Taylor removed his marking axe from the saddle, brandished it a few times, and began re-marking the poles, nonchalantly singing the Bonny Blue Bells of Scotland for our edification as he worked.

The prostrate cedar buyer spat tobacco juice at the "sit down" foresters and swore vengeance, but we Federals stuck it out until the job was done, then jumped on our horses and loped off, expecting a dose of artillery.

Before night, we found out by grapevine telegraph that this "sour puss" cedar man had again chiseled out the "U.S." marks. "What to do?" There wasn't space enough now left on a pole butt to place another good looking, dignified U.S. mark.

Well, the upshot was, we called the Supervisor by long distance 'phone - an unheard of expense. The Supervisor said, "Well, s'long's the guy has paid the money due - -," he didn't see any advantage to the government in carrying on the war. This satisfied the guard and me, but Jasper the Ranger worried for a day or two that he had "lost face" with his customers.

COMMENTS ON THE REGIONAL PERSONNEL OFFICERS CONFERENCE REPORT

By Bernard Frank, Washington

The value of the conference method depends as much upon the spirit of give and take as upon the organization of the subject matter. Judging from the report of the recent Forest Service Personnel Conference, both these elements were prominent. The report is constructively critical but, much more important, it makes fascinating reading. The field of personnel relations is alive with human interest yet all too frequently the subject is treated in a bone-dry manner.

For what it may be worth, I would like to expand on one phase of the report, namely that relating to the preparation of new personnel for the career service. Throughout the report stress is laid, and rightly so, on the in-Service training and development of the professional personnel. It seems to me that the non-professional (clerical and stenographic) personnel should have equal opportunity to understand fully their relationship as individuals to the organization employing them. The advantages in improved morale, increased efficiency, and mutual employee-employer confidence should be obvious.

Perhaps one of the most effective ways by which this understanding can be developed is through the orientation course method. This method provides the new comer with just the information, contacts, and interests he or she needs to become adjusted. The orientation course might be given at stated intervals, say once every three or six months for those entering the Service during the period. It would have the specific purpose of acquainting the employee with the nature of the organization, the scope and character of its work, its history, background, and traditions and its place in the Department and Federal Government.

The course might well include such features as group interviews with, and lectures by, the Assistant Chiefs, and perhaps also the Division Chiefs; discussion of personnel and administrative practices, and movies and slides illustrating the work and public relationships of the Service in its major phases. Short, guided field trips to nearby projects could be included to advantage as a means of capturing and stimulating the individual's interest.

The orientation course could well be organized as a formal program under the direction of personnel management assisted by the Division of Information and Education and participated in by each Branch. Provision should be made for the distribution of material covering the contents of the course, such as charts and descriptions of the Forest Service organization, policies, functions, and relationships, and its legislative basis, and could also cover lists of reading material on pertinent subjects.

The application of this procedure to new professional employees should by no means be neglected. Although forest school graduates, through course work and summer experience acquire some notion of the make-up of the Service, their understanding is apt to be incomplete, one-sided, and colored. To the extent possible, therefore, present plans for in-Service training might be expanded to include a general orientation course as soon after employment as practicable.

The orientation course idea is not new, of course, but its application in large governmental organizations is relatively new. In the Tennessee Valley Authority, for example, the method has been developed and applied to excellent advantage both at headquarters and in the field. Orientation of new employees is one of the specific functions of their Personnel Department's Training Division. Every Department contributes facilities and personnel.

As a closing comment, I would suggest that Personnel Management and Information and Education prepare an orientation program, pass it around for criticism to all personnel, both technical and clerical, and revise accordingly. It could later be tested and further improved by getting the reactions of employees who have participated. The program need not be continuous nor applied to individuals, but as stated above, might be conducted at periodic intervals for groups of new and recent employees in the Washington and Regional Offices.

THE MIGHT OF LITTLE THINGS IN CONNECTION WITH FIRE WOOD

(The following article by W. Zwart was published in Tectona, a Dutch Journal, and was translated by Michel Mok of the Washington Office)

In "Koloniale Studien" 1937, p. 437, we find an interesting daily budget of living expenses of a coolie employed in the batik industry in Pekalangan.

The daily earnings of this man amount to approximately 10 dutch cents (7 pennies our money) and of this amount he spends for himself and family (3 to 4 children) the following:

1½ Kati (0.6 Kg.) of rice	4 cents
Kerosene	½ "
Relishes, salt, etc.	½ "
Soup	1 "
Dessert	1 "
Tobacco	½ "
Fire wood	½ "
Total	8 "

The remaining two cents are spent for various obligations and purchases. Note that of the 8 cents spent for daily necessities ½ a cent goes for fire wood. This is 5 percent of the man's total income.

American foresters would immediately divide the number of inhabitants of Java (42 million) by the average family -- in this case 6 -- and multiply 7,000,000 by 365 days per year X ½ cent = 12,775,000 guilders (1 guilder = $0.68) in order to show us the value of fire wood used exclusively for cooking.

Just the same it is well to remember this amount! It may come in handy to show the necessity of the production forest.

THE FOREST SERVICE NOT A SPECIAL INTEREST SERVICE

By Wade DeVries, Pacific Northwest For. Expt. Sta.

In these days when we hear so much of government by special interests and pressure groups, I like to pride myself on the fact that I belong to an organization that represents no special interest. Other organizations are handicapped in their work because of the interests which they represent. Knowing this we accept their conclusions with a grain of salt, to say the least. The Chamber of Commerce represents "Business", the Farm Bureau Federation represents farmers, the National Association of Real Estate Boards represents property owners and the National Lumber Manufacturers Association represents lumbermen, of course. But the Forest Service has the enviable position of representing an interest in harmony with "The greatest good to the greatest number in the long run".

The Forest Service has been criticised for not doing more for the lumber industry. For instance, it has been blamed because its published position on forest taxation is not in accord with any plan which would lighten the tax load on the industry at the expense of the general public and yet not reduce the special tax obstacle to the practice of forestry. No doubt these criticisms are justified from the special interest point of view. In our work in encouraging the continuous production of forests, in devising new uses for wood and in managing the national forest resources our conclusions are colored by the consideration that we are working for all of the people. By continuing this strict adherence to the Forest Service slogan, the results of our efforts are more likely to obtain a wide acceptance.

THE EDITOR DISCOVERS

At its meeting on May 25, the National Forest Reservation Commission approved purchases totaling 215,933 acres in 48 National Forests and Purchase Units at an estimated cost of $647,790. Totals for the various Regions in which purchases were approved are:

R-4 - 8,649 acres, at an estimated cost of $ 23,978
R-5 - 25,954 " " " " " " 17,129
R-7 - 21,589 " " " " " " 84,800
R-8 - 76,522 " " " " " " 299,058
R-9 - 83,219 " " " " " " 222,825

The Commission also approved the exchange of 35,591 acres of forest land with the State of Michigan.

Of particular interest was the approval of the purchase of 1,309 acres of watershed land on the Arrowrock unit in Idaho to reduce sedimentation of the Arrowrock Reservoir, the principal element of the Boise reclamation project. To further protect the reservoir the Commission approved enlargement of the purchase area to include an additional 324,000 acres of the watershed which drains into the reservoir, of which 110,000 acres is to be purchased from its present owners.

Purchase of certain private holdings on Star Island in the Chippewa National Forest in Minnesota were approved, which will discourage extensive commercialization of this recreational area.

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Appointment of Lee Muck, Director of Forestry in the Office of Indian Affairs, as Director of Forests for the Department of the Interior, a newly created post, was recently announced by Secretary Ickes. In his new position Mr. Muck will not only act as coordinator for the present forestry branches in the Department of the Interior, but will also be technical adviser to the Secretary on forestry matters and allied activities such as forage use and conservation, according to the press release announcing his appointment.

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The program for equipping each CCC camp with an individual schoolhouse has been materially advanced in recent months through the use of salvaged materials taken from abandoned CCC camps, according to a press release issued by the Director's office. Since the beginning of the current fiscal year, the release states, the War Department has undertaken the construction of 764 new camp schoolhouses, only 22 of which have been or are being built of new materials. Of these 246 have been completed and the balance will be ready for use within a few weeks. Completion of the 764 buildings will bring the total number of camps equipped with separate schoolhouses to 1,010. During the operation of the Corps, more than 1,750,000 enrollees have voluntarily participated in the CCC's education and job-training program.

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Latest reports received from the Prairie States Forestry Project indicate the following estimates of trees planted to and including the spring of 1938:

State	Acres	No. of trees
North Dakota	12,387	14,942,277
South Dakota	16,511	16,967,515
Nebraska	21,269	15,368,932
Kansas	18,111	13,538,521
Oklahoma	21,657	12,947,859
Texas	16,961	10,897,281
Totals	106,896	84,662,385

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The National Broadcasting Company was honored on Saturday, May 28, when the Women's Press Club of New York City named the NBC National Farm and Home Hour to receive its award for the "best program for farm and rural audiences." NBC received six out of 10 possible awards in seven classifications. The Columbia Broadcasting System received three awards and one was presented to the Mutual Broadcasting System by Mrs. Minna Hall Carothers, President of the club. The award by the Women's Press Club is the second bestowed on the Farm and Home Hour this year. In February, the program received the Radio Guide Medal of Merit for general excellence in broadcasting.

Although the Women's Press Club of New York City is a local organization, embracing newspaper women in the metropolitan area, it had the cooperation of similar press clubs throughout the country in determining the awards. The club is a charter member of the National Federation of Press Women.

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Last year, 1,191,976 farm boys and girls between the ages of 10 and 20 were enrolled in 4-H clubs sponsored by the Extension Service of the Department of Agriculture in cooperation with the land-grant colleges and the local organizations interested in the welfare of rural youth, according to a recent Department press release.

More than 160 young people representing these clubs will attend the twelfth consecutive National 4-H Club encampment to be held in Washington, D. C., June 16 to 22.

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In making an inspection of a planting job this spring, the inspector asked one of the CCC boys what kind of a tree that was which he had just planted. The boy promptly replied, "Why, a wooden tree."

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The American Forestry Association says, in a recent note to R. F. Hammatt:

"We have a Due Bill for accommodations (rooms only) at the Capitol Park Hotel, Washington, D. C., amounting to approximately $100 - expiring August 25, 1938.

"We offer its use to any of your associates who have occasion to stay in Washington over night and we can arrange to let them have it at 50% discount. In other words, when they register at the Hotel they will simply state that their accommodations are to be charged against the Due Bill of AMERICAN FORESTS Magazine and we will arrange to get the Due Bill to them during their stay and after they have left the hotel they can remit to us 1/2 of the amount of their bill.

"The Capitol Park is a fine hotel, very comfortable and with reasonable rates. It is located at North Capitol and E Sts., which is convenient to the Forest Service office."

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The Chief recently announced the following changes in Directors of Experiment Stations:

Richard E. McArdle, now Director of the Rocky Mountain Forest and Range Experiment Station, has been appointed Director of the Appalachian Forest Experiment Station.

Stephen N. Wyckoff, now Director of the Northern Rocky Mountain Forest and Range Experiment Station, has been appointed Director of the Pacific Northwest Forest and Range Experiment Station. Mr. Wyckoff succeeds Thornton T. Munger, who has requested that he be allowed to devote his full time to research in his chosen field, as Chief of the Field Division of Silvics.

These changes are effective July 1.

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Willis M. Baker, Director of the Central States Forest Experiment Station, has accepted the position of Chief of the Forestry Relations Division of the Tennessee Valley Authority. He expects to leave the Service on June 15.

GRANT B. BRUCE

Through the death, on April 30, of Grant B. Bruce, the Forest Service as a whole and Engineering in particular, has lost a loyal friend and an efficient worker. Mr. Bruce started his career as a practical forester in New York State and later, due to an injury, gave up his outdoor work and came to the Forest Service in its early days under Mr. Pinchot, to take charge of and build up the official depository for map records. He gave many years of faithful, conscientious work to the Service prior to his retirement, due to disability, in the spring of 1937.

Grant was always a staunch believer in forest conservation and took a deep interest in the practice of forestry and the growth and management of the National Forests. He had a keen memory of events, changes and names associated with the forests in their infancy which proved helpful in his work. He was always friendly, cooperative, and beloved and his passing will be felt deeply by his many friends in the Forest Service, both in the Washington Office and in the field.

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> Theodore Roosevelt

Vol. XXII No. 13 Washington, D. C. June 27, 1938

WATER RELATIONS AND PRESENT POLICY

By E. N. Munns, Washington

An open letter. It is addressed to those members of the Forest Service who are interested in forest and water relations; members who once believed in those principles but who have of late neglected them; members who do not believe in them. It is addressed to those whose knowledge of the recent Washington Conference is, like mine, second-hand and limited to the mimeographed "Major Recommendations" of this conference. It is addressed to those members who failed to find in this document any spiritual food despite the fact that the Most High Priests of the Forest Service wrote it after a year's deliberation.

Reading "Major Recommendations" I was sickened clear through. Nor was I heartened by the Staff comments. No leadership, no inspiration, no clear-cut issues. No major recommendation on broad social or economic objectives. No action on regulation now, only further delay. No specific mention of watershed policies despite legislation which should have put the Service on its toes. One can scarcely believe those recommendations and comments were prepared by members of this same Forest Service that once did battle against the world for conservation or for recognition of the effect of cover on water. Truly our gods have more than merely "feet of clay."

For the moment, let us review the action of the Forest Service in its relation to water. Let's examine some history. In 1911, the Weeks Act was hailed as an accomplishment second only to the initial creation of the National Forests. It provided the Constitutional base for our existence - the effect of forests on water. It authorized land acquisition where forests affected navigable streams. It authorized compacts between States for water conservation. It authorized Federal and State cooperation on the protection of "forested watersheds of navigable streams."

In 1934, the Clarke-McNary Act recognized forest and water relations by authorizing cooperation in fire control "with a view to the protection of forest and water resources" and by requiring "due consideration shall be given to the protection of watersheds of navigable streams." It went even further "to extend protection to watersheds from which water is secured for domestic use or irrigation."

In 1936, the Copeland Flood Control Act established a new national policy of integration, the integration of watershed treatment with flood control works in the stream. The Whittington Flood Bill of 1938 reaffirms this policy and embarks the land management agencies of the Department on an active upstream flood control program.

But despite the handwriting on the wall, what do the field leaders of the Forest Service consider of such outstanding importance as to require a meeting. Instead of considering the development of major policies or recognizing new problems, these leaders discuss ways and means of keeping Washington from looking down their respective collars. Oblivious to new developments, it would seem they were more interested in safeguarding their bureaucratic domain than in broad forestry principles and objectives.

Let's look for a moment down the collars of both Washington and the field. Let us take a look to determine to what extent the Forest Service of today recognizes its responsibility to the water resource; see what it means by watershed management, see what it is doing to keep in step with modern progress, see whether it is really furthering the control and production of water.

Acquisition. Is our acquisition policy geared into flood control objectives? The Army is now building huge flood-control reservoirs on the Allegheny, Kanawha, Yazoo, St. Francis, and Red Rivers, but our acquisition goes merrily onward in Florida and Michigan without consideration of the new national policy. Reservation Commission reports give lip service to watershed protection, but ought not real emphasis be given to acquiring critical areas behind those works? Has the boundary of any purchase unit been changed so as to permit greater coordination of land treatment with major public works? If so, then it's not in the records.

Further, the "Major Recommendations" of the Washington Conference says "more emphasis should be given to the purchase of well-stocked second growth, selectively cut, virgin timber, and recreational lands." In other words, field leaders stress acquisition of those lands which already possess a cover while the impoverished, eroding, denuded lands on important watersheds are to take care of themselves. Extend our timber domain! Let the critical watershed lands go hang! That's the kind of far-seeing and forward-looking philosophy we get from the brass hats! What makes it worse, the Chief's Office says in comment "That's OK with me. I'll leave it up to you."

Reforestation. Is our planting program tied into the water problem? Perhaps! We have a huge program under way in the South, the Lake States, the Northwest. But how far are the needs of watershed protection taken into account in developing the program? Not much if you read the planting reports. Of course we need timber and of course we should plant denuded land, but when there is a choice to make, why not make it more in accordance with some of the principles for which we have stood? We should plant to help stranded communities - if they can be so helped - but ought we to let denuded lands under our jurisdiction continue to threaten folks down the river and the continued existence of flood control works? Ought we not to look at our planting program more closely?

Timber sales. Are our sales conducted with water effects in mind? Maybe so! Recently, because of improper silvicultural practices on a watershed, a flood resulted. Were we concerned because of the damage caused? Yes, but not until local people asked that something be done about the flood. They did not know why the flood, but we did! Will we take steps to prevent its occurrence? We will not. We will excuse our lack of diligence by saying that the flood was an Act of God. But, should not timber sellers be required to look into watershed conditions? Do you think they do? Have they ever said anything about it that you can recall? I have complained about a timber sale in the East only to be told that the method of logging was the only one possible which, if so, was a fine excuse for not making the sale.

Fire Control. Is our protective work on a watershed basis? Is it developed to protect watersheds of high value? Let's look at the record! Some 30 years ago the first National Forest units were created in southern California - for watershed protection. What has happened? Under 30 years of protection we have just about burned over the important watersheds.

Some protection! Have we concerned ourselves with giving southern California the protection it needs?

This year a major flood occurred in three rivers draining those National Forest lands. The water and rock from these fire-swept areas, greatly in excess of that from unburned areas, caused loss of life and tremendous property losses. But has the Service rushed to Congress to apply for more adequate protection? The answer is "No"! It has asked for money to replace the damaged improvements, but none to increase the intensity of protection. Is the Service satisfied with its watershed protection efforts? One must think so for Major Recommendations say nothing about them. I fear for our protection policy. It is only a few years back some protectionists advocated a let-burn policy for mountain watersheds. Even now, some of the same group are flirting with controlled burning if not condoning it. The Clarke-McNary Act says "protect water resources." It says that in cooperation with the States "due consideration shall be given the protection of watersheds." Are we not getting lax in our protective policies? Are Congressional mandates to be forgotten or winked at because they are not in harmony with our ideas? If we don't agree with this legislation, why don't we tell the Congress and the public?

Grazing. Is our grazing administration water minded? Probably much more so than timber administration. The Range Report tells us we're pretty good, and we tell the water users who complained about our timber sales that their difficulties are due to overgrazing on private lands. Floods occurred not so many summers ago in this same region. They were due to cloudbursts, but isn't it strange that cloudbursts happen so often where overgrazed or denuded lands occur? Have we done anything to prevent further such "cloudbursts"? Does the flooded rancher get any redress because we permit such conditions? Are we greatly concerned over such floods? Wonder if inspectors every comment on these conditions!

Roads. Are our roads (or truck trails) something to be proud of? How many miles of them have been treated to prevent erosion, to retard run-off? My guess would be less than 1 percent during the expansion program of the past 5 years. Too harsh? Perhaps, but not as harsh as the scars being made on the landscape or the damages caused down stream for which no one is called to account. Do our inspectors really call the turn on the road builder for such damage?

Watershed Mismanagement. Why not call those things by their right names and not kid ourselves about watershed protection, control, and management? A few years ago we were going to do something in Washington about our water and soil problem. Months roll along, water studies are being made by numerous public and private agencies, new water policies are being adopted, yet the Forest Service, that agency which started out on a basis of water control, now gives lip service only to the principles of watershed protection. If we mean what we say, why aren't we doing something about it?

Over and over during the past winter, certain questions have been going through my mind: Has the Forest Service lost its leadership in the conservation movement? Hasn't the Forest Service become so interested in organization that it has forgotten what it was organized to do? Hasn't the Forest Service somehow lost its grip? Then, on top of these questions comes the Washington Conference and its "Major Recommendations". Having seen now over what great issues our Field Marshalls and the General Staff do battle, the answer seems crystal clear - it has! No wonder the apathy to water problems. In becoming managers, we have lost touch with the soil, with our humble origin.

Have we made any major strides in recognizing the social obligations that have been pointed out to us? We are now in the way of neglecting and even forgetting legislative direction with reference to water. Can the Tories be so waked up that they will put the house in order before some one steps in to do it for us? Wherein lies the cure? It is not in dodging new issues, it is in seeking them and in capitalizing them. It is not in bureaucracy, but in democracy. It is not in petty bickerings over inspectors, it is in constructive leadership on principles. How can that leadership be obtained? And where? I'd really like to know.

ROADSIDE BEAUTIFICATION

By L. F. Kneipp, Washington

(From a letter prepared for Hon. E. D. Smith, Chairman, Committee on Agriculture and Forestry, in response to his request for the views of the Department on Bill S. 3963, "To authorize the acquisition of forest lands adjacent to and over which highways, roads, or trails are constructed or to be constructed wholly or partially with Federal funds in order to preserve or restore their natural beauty, and for other purposes.")

Highways, roads and trails which are framed by stands of virgin or mature second-growth timber rank high in inspirational quality, natural interest and scenic appeal. As attractions to visiting motorists they frequently are definite economic assets to the regions in which they are situated and their esthetic values are genuinely appreciated by the local residents.

Logging operations on lands abutting on heavily traveled highways and roads almost invariably are provocative of wide and genuine resentment and disapproval. They not only impair the charm of the local environment but they frequently influence the flow of tourist travel and thus adversely affect the economic well-being of the dependent communities. Consequently, during the past decade or more the movement to safeguard and conserve the stands of timber fringing highways and roads has become one of major proportions and importance in a number of the States, Oregon being a notable example.

So far as National Forest lands are concerned, the principle of conserving the timber immediately contiguous to highways and roads is one of long standing and of almost complete application. In the acquisition of forest lands through purchase or exchange advantage is taken of every opportunity to retain on and acquire with such lands the mature timber framing the highways and roads. There is, however, in the aggregate, a large acreage of privately-owned lands supporting mature timber and abutting on highways or roads within the National Forests which can not promptly be acquired because of lack of means and upon which cutting operations consequently may occur upon short notice. So far as this part of the problem is concerned, appropriations to carry out the provisions of the Weeks Law, more adequate to current and prospective requirements, would enable the Forest Service to accomplish the desirable public objectives within the boundaries of the National Forests.

The part of the problem for which there is no immediate solution, other than the bill S. 3963, is in connection with the lands outside of the National Forests. The basic provisions of the Act of March 1, 1911, as amended, do not seem applicable to the acquisition of long narrow ribbons of forest contiguous to the highways, where the effect upon navigability of streams or the production of future timber supplies would be out of proportion to the costs of acquisition, protection, and management. Nevertheless, the desirability and public advantage of protecting such strips of forest from denudation, with consequent impairment of large public investments in highways and roads, seem too obvious to require specific recitation.

The essential purpose in acquiring such strips of forest abutting on highways and roads would be to most fully realize the public values of the highways and roads and primarily to benefit the users thereof. In that circumstance the cost of acquiring the necessary land and mature timber thereon would seem to be an appropriate charge against the funds appropriated or otherwise made available for the construction and maintenance of the highway or road. That principle properly is recognized in the bill S. 3963.

No detailed figures are available to approximate the cost of the ultimate program of roadside forest conservation which might be justified on the grounds of public benefit and value. Two years ago the Forest Service made a study of the situation in the State of Oregon involving twenty-four highway projects with an aggregate length of 710 miles, partly within National Forests. The estimated cost of acquiring the lands and stumpage essential to safeguard the beauty of these twenty-four projects was at that time $3,025,000. To carry out the program in a national way might necessitate ultimate expenditures of possibly $25,000,000 to $50,000,000, but distributed over a term of years so that the amount of highway and road appropriations employed to acquire abutting lands and forests would not during any single year amount to more than a quite minor proportion of the funds made available for highway construction and maintenance.

In the opinion of this Department the objectives of the bill are sound and the procedure prescribed to carry them to execution is believed to be practicable. The Department is unaware of any reason why the bill should not have the approval of your Committee and of the Congress.

THE CCC IN ALASKA

From Region 10

When Mr. Fechner approved the expansion of the CCC in Alaska last year and assigned the whole job to the Forest Service, Region 10 was forced as never before to give consideration to the economic and social problem of the entire Territory. It also was forced to cudgel its collective brains for methods of adapting the CCC to the peculiar and varied conditions of that far-flung land.

Eskimos and Indians were made eligible for enrollment. This brought us into the whole problem of native needs and public responsibility and posed the question of how the CCC activities can be best fitted to the work of other interested agencies, such as the Bureau of Indian Affairs, Territorial welfare board, church missions, and the local industries offering seasonal work. The Alaska aborigines are "free agents". They do not draw rations and clothing from the Federal Government, and nothing should be done that would tend to lower their self reliance. The fact that they live in small villages scattered along thousands of miles of shore line, from Ketchikan to Point Barrow on the Arctic Ocean, and can only be employed satisfactorily near home offered great administrative difficulties.

Our field of operations is the whole Territory - 586,000 square miles of pioneer country with exceedingly scanty transportation and communication and much of it subject to long, hard winters. Food and transportation costs are fantastically high in many places and delivery dates on supplies and equipment are often mere speculations. During the past year we worked from the British Columbia line to Cape Lisburne, far north of the Arctic Circle. Mail from many outlying places may be two months or more in reaching the Regional Office during the winter season. Important messages can, however, be transmitted from many points by U. S. Signal Corps radio, and we frequently send out special instructions from Alaska broadcasting stations with the hope, often realized, that they will be picked up by our men. Airplanes, dog sleds, boats, and other travel means are often employed in making a single contact with a field party. Everywhere the work methods have to be adapted to local conditions. For example, we have taken out building material in southeastern Alaska by means of the conventional logging methods employed in the Pacific Northwest, while teams of 15 dogs have been employed in a similar enterprise in the patches of white spruce that occur on the Noatak and Kobuk Rivers within the Arctic Circle. Many of the work projects are similar to those of continental United States - recreational facilities near the larger towns, roads and trails, etc. - but some are unusual, such as wolf control measures on remote waterfowl nesting areas and the installation of public corrals and shelter cabins on tundra reindeer ranges within the Arctic Circle. As the airplane is rapidly revolutionizing the settlement of the frontier countries such as Alaska, the CCC has given particular attention to the building of simple landing fields on the open public lands. Also the removal of the forest growth as part of the job of constructing these landing fields is a good winter activity.

As already mentioned, the Forest Service handles all phases of this CCC work in Alaska. The only Army man participating is a paymaster at Juneau. We enroll, feed, clothe, and house the men, supply the camp facilities and approve and administer the field projects. The size of the camp is adjusted to the number of local enrollees and men are not transported long distances to central points. Along the south coast, floating camps that can be shifted from one work job to another are frequently employed; in some cases buildings are leased and in others tent camps are used; near the principal towns semi-permanent wooden buildings are erected for camp use; Indians are largely quartered in their own homes.

The maximum enrollment occurs in winter and has reached 1,250. Summer employment at good wages drains off the better class of enrollees to the seasonal private industries. During the past winter, 800 natives were on the CCC rolls. The working units averaged around 25 men. As might be expected in a pioneer country most of the Alaska enrollees are exceptionally well skilled in the classes of work performed by the CCC. This is true of the Indians as well as the whites. Incidentally, we have found that the work output of the Alaskan Indians compares quite favorably with that of the whites, a fact that upset a preconceived notion of many persons.

The expansion of the CCC to cover the entire Territory which was started as an experiment and with some misgivings, has, in our opinion, already proved to be of inestimable value to the young men of the Territory and to the perpetuation of the Territory's resources. This opinion is confirmed by favorable statements of the interested Federal and local agencies, and of individual citizens who are familiar with the project.

THE EDITOR DISCOVERS

A new two-way radio communication unit adapted to fire trucks and cars used in fighting forest fires has been developed at the Radio Laboratory. Work on the new device has been carried on by A. G. Simson, radio engineer, and associates, who have perfected a means of using the regular short wave instead of the ultra-high frequencies now employed by police cars and others on patrol duty for two-way communication. The new unit thus permits a greater communication range than is possible with the ultra-high frequencies.

"The transmitting range under adverse conditions has proved to be at least 25 miles while tests under average conditions show the outfits to have a range up to 250 and even 500 miles," Simson says. "These distances are phenomenal when it is considered that the antenna used is only a 7-foot metal fish pole of the ordinary hardware store variety, costing about 60 cents."

A recent test was made of the new radiophone device by talking from Portland, Oregon, to Reno, Nevada, and distances beyond with excellent results.

According to Simson, the outstanding feature of the apparatus is a small iron box containing the matching unit which permits unusual efficiency in transferring energy from the transmitter to the antenna and conversely, from the antenna to the receiver. A coil and condenser combination is used to adjust the impedence of the antenna to the transmitter so that they are brought in perfect tune similar to the tuning of musical instruments, thus insuring a maximum transfer of radio energy. For example, in tuning a string on a piano with a string on a guitar, the striking of the piano D-string will cause a vibration in the guitar D-string. The new radiophone development makes it possible to use a similar vibration energy more efficiently although the normal power output is only approximately eight or nine watts. The power is furnished from the regular 6-volt car or truck battery."

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The honorary degree of Doctor of Laws was recently conferred upon Mr. Silcox by Syracuse University.

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An award has been made to the Stinson Aircraft Corporation for the procurement of the one airplane permitted by the Appropriation Bill for the Fiscal Year 1938. This is the latest type "Stinson Reliant" high wing plane with 450 horsepower engine. Such modifications were made in the design to accommodate the plane to the experimental work in aerial fire control being conducted in California. It is expected that the plane will be flown from the plant in Wayne, Michigan, to California during July.

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Agreement has been reached with the Bureau of Air Commerce whereby blanket authority will be issued to each Regional Forester, who may delegate authority to Forest Supervisors and to pilots and plane owners, to fly at low altitudes, to remove doors of planes, and to drop equipment and supplies from planes in connection with fire suppression work.

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Dr. Gote Turesson, Director of the Institute of Plant Systematics and Genetics of the Agricultural College of Sweden at Uppsala, and Mr. Carl G. Alm, Assistant at the Botanical Garden of the University called at the Washington Office recently to discuss their plans for a visit they are now making to the United States and Canada.

The general objective of their visit is to study on the ground a group of species in the northern and western United States which might be suitable for introduction into Sweden or for plant breeding purposes at the Institute, and to collect seed and plant samples. They are particularly interested in such species as poplars, birches, beech, and various eastern and western conifers. In addition they wish to get in close touch with the investigative work under way in the United States in the field of genetics. During the course of their explorations, which will last approximately six months, they will visit representatives of the Northeastern, Lake States, Northern Rocky Mountain, Pacific Northwest, and California Forest Experiment Stations, and probably also the Regional Offices which cover the same territory.

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Dr. von Friedrich - Schroeter, President of the German "Dendrologische Gesellschaft" and "Rittmeister a. D. und Landwirt", a recent visitor to Washington, D. C., writes as follows from his home in Neubersteich, Germany:

"Our trip to U.S.A. was very interesting for us and we enjoyed it very much. I think very often of the beautiful days we spent on the other side of the ocean. The kindness of all the officials of the Forest Service was indeed a cause to be very thankful."

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Secretary Wallace has announced the appointment, effective July 1, of Dr. Warner W. Stockberger as Special Adviser to the Secretary on problems of Department administration. He has also announced the appointment, effective July 1, of Roy F. Hendrickson to succeed Doctor Stockberger as Director of Personnel.

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Mr. Silcox has announced the appointment of Charles A. Connaughton as Director of the Rocky Mountain Forest and Range Experiment Station. He will assume his new duties July 1. Mr. Connaughton has been in charge of Forest Influences at the Station.

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"GRASS"

(By John J. Ingalls, late United States Senator from Kansas)

Next in importance to the divine profusion of water, light, and air, those three physical facts which render existence possible, may be reckoned the universal beneficence of grass. Lying in the sunshine among the buttercups and dandelions of May, scarcely higher in intelligence than the minute tenants of that mimic wilderness, our earliest recollections are of grass; and when the fitful fever is ended, and the foolish wrangle of the market and forum is closed, grass heals over the scar which our descent into the bosom of the earth has made, and the carpet of the infant becomes the blanket of the dead.

Grass is the forgiveness of Nature--her constant benediction. Fields trampled with battle, saturated with blood, torn with ruts of cannon, grow green again with grass and carnage is forgotten. Streets abandoned by traffic become grass-grown, like rural lanes, and are obliterated. Forests decay, harvests perish, flowers vanish, but grass is immortal. Beleaguered by the sullen hosts of winter, it withdraws into the impregnable fortress of its subterranean vitality and emerges upon the solicitation of spring. Sown by the winds, by wandering birds, propagated by the subtle horticulture of the elements which are its ministers and servants, it softens the rude outlines of the world. It invades the solitude of deserts, climbs the inaccessible slopes and pinnacles of mountains, and modifies the history, character, and destiny of nations.

Unobtrusive and patient, it has immortal vigor and aggression. Banished from the thoroughfares and fields, it bides its time to return, and when vigilance is relaxed or the dynasty has perished it silently resumes the throne from which it has been expelled, but which it never abdicates. It bears no blazonry of bloom to charm the senses with fragrance or splendor, but its homely hue is more enchanting than the lily or the rose. It yields no fruit in earth or air, yet, should its harvest fail for a single year, famine would depopulate the world.

"COME AND GET IT"

By Marguerite McGuire, Washington

If any of our tall Rangers, in wandering about on the Superior National Forest, should become hungry, he could cook for himself a lunch, in fact, a complete dinner of many courses, from the names of the thousands of lakes of this region. Beginning with seed, he could have his choice of the following vegetables: onion, carrot, potato, bean, lima, or parsnip. From the meat course, there are clam, oyster, and crab by way of sea food, along with such delicacies as turtle and frog. If taste runs to wild game, teal, partridge, duck and grouse are plentiful, as are rabbit and hare. A fish course could consist of pike, bass, chub, pickerel, trout, carp, sturgeon, sucker, sunfish, speckled trout, or roe. Deer, bear, moose or caribou would satisfy a hankering for larger game; while if one adheres strictly to good American rib, there are cow and bull to furnish it. The proper utensils for cooking and eating the food are to be found nearby -- pan, frying pan, knife and spoon. A fork may be picked up along most any stream that feeds a lake. The starches of our Ranger's meal are not omitted, for he may have both rice and flour. Pickle and pie give zest to the dinner, which may be topped off by a fruit dessert of melon, cranberry, blueberry, prune and plum. And, after dinner, out of a jug may come java, rum, wine, or for the strictly temperature fellow, just plain clearwater. No one need starve on the Superior!

(Note: The underscored words are the names of lakes found on a map of the Superior National Forest, recently published by the Forest Service.)

DAVID A. SHOEMAKER

David A. Shoemaker, Assistant Regional Forester and Chief of Range Management for Region 3 passed away May 16 after an illness of seven months.

While it was generally known that Shoemaker was seriously ill his passing came as a shock to his friends in Albuquerque as well as to the field and his loss strikes home in the affections of the personnel of the Service not only in Region 3 but throughout the country.

Mr. Shoemaker was a leader in the Service in range management matters and since the Ogden meeting had been active personally in carrying on the range management studies as well as regular administration. Last summer and fall he traveled extensively, holding meetings personally with 52 state and local livestock groups in the two States for the purpose of working out problems connected with grazing policies of the Service. It is now known that Shoemaker carried on this work under severe physical handicap but without any let-down in his effort.

Mr. Shoemaker served twelve years in this Region out of a total of 25 years in the Service, having previously worked for the Service at Custer, South Dakota, and Logan, Utah, before becoming Grazing Inspector for Region 4 in Ogden. In 1924 he was promoted to the Washington, D. C. headquarters and in 1925 assigned to the office in Albuquerque. He became Assistant Regional Forester in charge of Wildlife and Range Management in 1934. He was a member of the Society of American Foresters, the Southwestern Conservation League and the American Forestry Association. - R.3 Daily Bulletin

FOREST SERVICE U S DEPARTMENT OF AGRICULTURE

SERVICE BULLETIN

CONTENTS CONFIDENTIAL

JUL 18 1938
Department of Agriculture

WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT ××× THE TIME HAS COME FOR A CHANGE AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY ×××× TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES. WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER

Theodore Roosevelt

Vol. XXII No. 14 Washington, D. C. July 11, 1938

"THE LOWER ONE-THIRD AND THE FOREST SERVICE"

Comment by G. A. Pearson, Southwestern For. and Range Exp. Sta.

This refreshing booklet by Martha Bensley Bruere paints a vivid picture of scenes with which every forester is familiar. The social problem of the woods worker and woods dweller is a complex one, and therefore any new approach is to be welcomed. A discordant note in this otherwise excellent treatise is the idea that foresters have specialized in growing trees to the extent of neglecting the human aspects of forestry. Every forester knows that we have scarcely begun to practice timber management. My purpose in writing this comment is to point out that if a solution to the social problem is found, it will be along the path of more intensive rather than less intensive silviculture.

Primary evils of the present labor system in the lumber industry are the intermittent character of employment and the shifting of locations. The tragedies of a logging practice that creates ghost towns and ghost forests require no comment. Even the present sustained-yield cutting practice of the Forest Service does not wholly remedy this evil. The woods worker cannot move his house or his farm with a logging operation which cuts over several square smiles each year. Substantial improvement is seen in the present tendency toward lighter cuts and shorter cutting cycles made possible by motorized transportation.

A prime requisite for the family life which is now denied most woods workers is organization of cutting operations so that the employees can live in small towns or communities near enough to the work to permit returning at night or at least for the week end. A house and a garden, yes, but a farm, no! Only high-salaried officials can afford to support a farm. Although part-time employment in the forest or sawmill may be the salvation of the small farmer, the reverse relation in which a wage earner engages in farming as a side issue is rarely successful. The reason is that farming on a sufficient scale to make it worth while calls for equipment and requires the undivided attention of the farmer during 8 or 9 months of the year. In many regions the slack season on the farm coincides rather closely with the slack season in logging and milling.

Additional industries in which the peak of activity coincides with low tide in lumbering and farming would be the ideal solution. Such industries already exist or could be established in some forest communities but in most of them the opportunities are lacking. Forest Officers can help to establish new industries by supplying needed information. Experience has shown, however, that a greater opportunity for service lies in heading off unsound enterprises which are doomed to failure at the start.

This brings me back to the concluding statement of the first paragraph. Better silviculture, along with better cutting practice and utilization, offers one of the best opportunities for stabilizing employment in the forest. Practically every National Forest in the United States, perhaps excepting some in the most populous regions, could effectively absorb all the unemployment within and adjoining their boundaries. During the recent depression years, labor quotas in the National Forests have been filled mainly from large cities normally dependent only indirectly upon the lumber industry. In fact, lumber production has been one of the most active of all industries throughout the depression. Such work projects as road building, other physical improvements, and artifical erosion control will sooner or later encounter an economic limitation. But silvicultural work, of which stand improvement is the best example, can be made to yield almost unlimited employment that will repay its cost, at least as far as the principal is concerned.

Of the 11 million acres of saw-timber land in the Southwestern region, there are perhaps 4 million acres on which increased volume and quality of yield resulting from stand improvement would repay an expenditure of 8 man-days per acre during each 100 years. Assuming that the work is carried on mainly during slack periods, stand improvement would provide 60 days' work each year for 5,300 men, which would take care of those normally employed in the lumber industry and leave a substantial margin for other people living within or near the National Forests. Besides, an estimated increase of 50 percent in volume of yields due to stand improvement would bring about a corresponding increase in logging and milling labor.

In a few densely populated forests of the East and South, the above figures would prove inadequate, but in those regions higher yield capacity would warrant higher expenditures per acre for cultural operations. Planting would be an important activity in humid regions where large areas of non-agricultural land have been denuded.

There is no simple answer to the social problems of the forest. In the main, each community must solve its own problems. Foresters can take an active part in community affairs, but I believe they can render their most effective service by managing trees and other resources that make individual enterprise possible.

(Note: The objectives of the Service, as outlined in Circular letter of June 21 designated "C-Supervision-Forest Service Objectives," stated that:

> "The ultimate objective of making these resources productive is social and economic benefit. Or in other words, to make the forest resource contribute to the fullest possible extent to the permanent solution of ever changing social and economic problems and to permanent human welfare and security."

-Ed)

NEW VENTURE IN RECREATION

By R. S. Monahan, Washington

With the successful dedication on June 28 of the Cannon Mountain Aerial Passenger Tramway this innovation in American mountain travel has passed from the agitation and construction phases to the equally interesting operation and demonstration stage. Located in the Franconia Notch Reservation acquired by the State of New Hampshire in 1928 by public subscription and State appropriations, the twin cars of this widely heralded "first aerial passenger tramway in the country" are now shuttling tourists and sightseers from the base terminal near Echo Lake to the mountain station, a short distance from White Mountain National Forest land on the summit of Cannon Mountain and 2000 feet above the valley station.

The enterprise has escaped the pitfalls of conflicting jurisdiction that have befallen the few somewhat similar enterprises attempted in this country with private capital and Federal grants, because the project is financed by a State bond issue of $250,000 and operated over State-owned land by a State Tramway Commission. Despite early objections on sentimental grounds, as well as cost and location, which were considered at various hearings, no united local opposition continued and now, within a mile of the Old Man of the Mountain and in the heart of a traditional mountain tramping area, this extreme in mechanical transportation is actually in operation.

A few of the many interesting facts about the tramway will suffice to indicate the type of carrier which may be expected elsewhere, if this project proves successful. It consists essentially of two stationary track cables 1 7/8" in diameter, two main traction ropes 1" in diameter, auxiliary ropes, two twelve-sided steel cars accommodating 27 passengers, and three intermediate towers averaging 90 feet in height erected between the valley and mountain stations, which are 1 1/8 miles apart. The same safety and construction principles are employed which have been used without accident on 33 similar tramways erected in Europe and South America since 1912.

Major attractions of the tramway are the opportunities to enjoy the varied mountain, lake and valley scenery from a White Mountain summit and to walk or ski on the network of trails recently added by the CCC to the system previously available in the State Reservation and the National Forest.

In view of the present policy of the Forest Service regarding tramways and the known rivalry among all recreation centers for unique attractions, it is interesting to speculate when and where the demands for comparable facilities may originate. Certainly we would do well to stop theorizing now that the actual operation of a sample passenger tramway in close proximity to a National Forest and its effect upon the landscape can be observed.

Exactly eighty years ago there were many who ridiculed Sylvester Marsh's petition for a charter to build a cog railroad to the summit of Mount Washington but the "railway to the moon" is still chugging up the three-mile incline and its rack and pinion design has been copied in this country and abroad. And only four winters ago in Woodstock, Vermont, virile skiers scoffed at the idea of being pulled 900 feet up a slope on an endless rope propelled by a discarded automobile engine. Today, the ski tow in all its various ramifications is considered standard equipment at most winter sports centers throughout the country.

The proving grounds of both unique carriers are located almost within sight of the mountain station of the tramway. Will the tramway, too, serve as an example to be followed elsewhere and, if one of the numerous potential sites within the National Forests is suggested, will our present policy be modified?

DON'T LET'S BURY "CONSERVATION!"

By Jane Snyder, R. 7

Instead of burying Old Man Conservation as suggested in an article in the May 30 issue of the Service Bulletin, let's resurrect his companions, Natural Resources. There is nothing wrong with the old man himself, he simply needs company. There is no other phrase which can so completely tell our Forest Service story as does "Conservation of Natural Resources." "Conservation" used alone is meaningless in this day and age when the great urge is to conserve everything, including youth, health, beauty, wealth, energy, human values, natural resources, etc.

There is a tendency on the part of most of us in the Forest Service to befog the minds of those we serve by dropping parts of our important phrases. We say "Service" when we mean "Forest Service" and immediately we are numbered with Army and Navy folks. We say "Forest" and think that Johhny Q. knows we mean "National Forest" because we capitalize the "F." But he doesn't. "Forest" to him means a group of trees regardless of ownership or management.

The same is true of "Supervisor" and "Ranger." The former to our new friends might easily mean the Supervisor of County Schools, Supervisor of State Institution for Feeble Minded Persons, etc., while the latter could mean a National Park guide, a Texas Ranger, or in the minds of our imaginative youngsters the Lone Ranger of present-day movie fame. It takes but little additional time to speak of our National Forest Supervisors and Forest Rangers.

So let's give Old Man Conservation another chance. "Conservation of Natural Resources" is a fine phrase; it has a patriotic ring, and indicates by four words what we are trying to do for future generations.

MESSAGE FROM THE HEREAFTER?

By Ellery Foster, State Forester of Minnesota

When a man leaves one outfit and takes a job with another, perhaps he should drop out of sight and out of mind, so far as his former associates are concerned, the same as when he dies. Yet, whether in good form or not, I have an urge to send a message back to friends and associates in the USFS.

Because of the different environment out here in Farmer-Labor Minnesota, this may seem like a message from the hereafter to those who live in States where even government is still dominated by the "sixty families" and their hirelings.

The first thing that impressed me on getting back into Minnesota was the feeling of progressivism in the very air. The second thing was the busy people, actually doing things to preserve political democracy, and to achieve economic democracy. I found them not only in government, but in many kinds of "co-ops", in labor unions, in education, even in conservation.

One of the greatest satisfactions of being here is to have not a few, but many friends abreast or even ahead of me in economic thinking. Many here more than agree that we have got to preserve political democracy if we are ever to achieve economic democracy through peaceful processes. They often beat me to it and say these things first. Thus, we can quickly get down to ways and means.

As just one example, there is the national president of a progressive farmer's organization who comments ironically that, in the headlines of the Tory press, he is a hero for having plunged into the icy Mississippi attempting to save one man from drowning, while his long years of work to help millions of people, are damned by the same papers.

In short, there are many people out here for whom life has a real meaning in terms of human fellowship and cooperation. They are people who have been able to shatter false standards set by the indecently rich and mimicked by the rest of us. They are working with purpose and conviction to preserve political democracy and to establish democratic control of industry.

These people aren't mere visionaries working gayly for small gains unaware of the world's mad rush toward fascism and war. In fact, they see it much more clearly than most of us. That, perhaps is why they are working so energetically.

Having come into such active contact with these ideas and facts, I am in poor position to know what the attitude of the average USFS employee may now be on these vital issues. I like to hope that the serious interests of government foresters are extending far beyond bureaucratic duties and ambitions, into the historic trends of social change and to resolute convictions regarding democracy, freedom and peace. But habit is strong. Security and good pay seem to be corrupting and deadening influences. Lack of economic conviction is a powerful deterrent to action. So I suppose there is only a little handful of Forest Service people who are both intelligent and idealistic enough, first to have seen the issues clearly and second to have energetically lined up on the side of progress.

Yet, if middle class people in general are any criterion for judging foresters and foresters' wives, there is grounds for hope that many forestry minds are groping to find meaning behind the world's strife. It is for us of this group that this is written. Let us grope vigorously, and in groping read some of the progressive books and subscribe for some of the progressive papers such as Ameringer's American Guardian (Oklahoma City), The Midwest Daily Record (192 N. Clark St., Chicago) and others.

Above all, if Forest Service people read no other progressive literature, let them by all means read "The Forest Service and The Lower Third" by Martha Bensley Bruere, a Forest Service publication. There they will find humanitarianism and progressivism applied to the specific work of the Forest Service.

Most of the foregoing may seem too far removed from forestry to be sent to Forest Service people via the Service Bulletin. But I am convinced that the solution to the problem of making forestry a more effective instrument for improving the condition of life for the large mass of the people, is for forestry people to wake up to these big, vital issues with which really alive people throughout the world are grappling, and then to align themselves, vigorously and courageously on the side of democracy and humanity, against selfishness, smugness, greed and indifference.

WHAT THE "SHOW-ME" TRIP SHOWED

By Angela C. Janszen, Washington

After years of wishful waiting for an opportunity to see one of the Eastern National Forests under the supervision of a Forest Officer, the time was ripe on June 25, and the girls of Region 7 and the Washington Office took a trip through the George Washington National Forest to the Jefferson National Forest.

At 8:45 Saturday morning, six cars, marked with "Forest Service Caravan" stickers and white flags, and filled to overflowing with grub, blankets, and interested passengers pulled away from the Virginia side of the Memorial Bridge. The first stop was Elizabeth Furnace Forest Camp on the George Washington, where we were welcomed by the Forest Officer in charge. About 30 hungry mortals consumed coffee and sandwiches, took a quick look around the camp grounds and started on to Harrisonburg. After a short visit at the office of Supervisor Howard in that city, where we were given official welcome by members of the staff, the journey was continued through Natural Bridge Station and on to Cave Mountain Forest Camp in the Jefferson Forest. Here we camped for the night in Forest Service tents.

One of the highlights of the evening's entertainment was a campfire gathering at which Supervisor McNair and Ranger Lewis Smith gave short talks on the Forest and Ranger District, respectively. After the talks the group entered into a question and answer game. The questions, pertaining mostly to forestry and geography, were put to each in turn and when neither the questioned nor the group could answer it, the Supervisor was called on. While this seemed to be taking unfair advantage of him, he was very agreeable "about the whole thing" and gave answers to questions over which we may have puzzled many times.

At 8:30 Sunday morning, the entire party, was "herded" into two open trucks (Marie Antoinette fashion) and taken over the mountain road through the forest of pines, hemlocks, and oaks, dotted here and there with the ghostly forms of blight-killed chestnuts, to the summit, Sunset Field. The view of the blue haze-covered mountains about us with the great bulging clouds rolling over their tops was a sight to be remembered. The Apple Orchard fire tower, seen in the distance, watched over the 429,000 acres of land already acquired within the purchase boundaries of the Jefferson Forest. Ranger Smith answered many questions about the Forest, and we once more "boarded" the trucks and were whisked down the mountain to the camping grounds, where a good many of the group took a swim in Cave Mountain Lake. At 1:00 p.m. we were on our way to the CCC camp for dinner. After two days of meals over a campfire it was good to sit down to a meal prepared and served in the accepted, modern fashion. Guess that's the "tenderfoot" in us.

The entire caravan, headed by Ranger Smith left the camp at 2:30 p.m. and the next stop was Natural Bridge, where arrangements were made to take the party on a hurried trip to view the Bridge, and here the caravan disbanded.

To my mind, the trip was a great success as an outing and to give the girls in the Forest Service an idea of the recreational facilities of the National Forests, but I am looking forward, some day, to a "show-me" trip that will take in, in a small way at least, the timber sale, reforestation, and fire control activities of the National Forests. Here's hoping.

SOME HUMOR EVEN IN ACCIDENT CASES

By Alan Richards, Washington

Believe it or not, even Claims work, growing out of traffic accidents, offers a gleam of humor now and then. Otherwise we should surely become confirmed misanthropists.

The following are excerpts from accident reports, statements of witnesses, drivers, etc.:

Story No. 1 might be entitled How Intelligent is a Pig?

"The accident may be primarily attributed to the icy condition of the road at the time and the low order of intelligence displayed by pigs who nest by the side of the road and particularly of that type of pig that is indigenous to eastern Kentucky."

No. 2 He Found it Out

"I looked up and down the track but did not see anything coming. I did not hear any whistle so I started the truck and approached the railroad crossing. As I reached the southbound track I suddenly realized I had been struck."

No. 3 The Right Church but the Wrong Pew

"Brooks was taken to the hospital and bandaged; from there he went to the garage to see about the truck. Here, the State patrolman picked us up and said, 'Let's go over to the city hall.' We went but it must have been the wrong part of the city hall as they locked us up for the night and Lieut. Beesley came after us the next morning. This is the truth, the whole truth and nothing but the truth so far as I know."

THE EDITOR DISCOVERS

The Division of Fire Control has announced the inauguration of a new angle in the forest fire prevention campaign for this year with the use of dramatized spot announcements for radio broadcasting. In brief flashes these miniature dramas depict various results of carelessness with fire in the woods and ask the cooperation of the listening public. A series of twelve such vignettes have been recorded by the Radio Corporation of America, under the supervision of Marvin Beers, radio writer with I & E. Actors from the staff of the Educational Radio Project were secured for the work. In order to obtain Nation-wide coverage in this campaign, copies of the recordings will be sent to the Regions to distribute to nearly two hundred radio stations throughout the country.

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Mr. William P. Kramer has been appointed Chief, Division of Operation, effective July 1. Mr. Kramer entered the Service as a Forest Assistant in 1919. In 1921 he was assigned to Puerto Rico and for ten years served as Insular Forester and Supervisor of the then Luquillo National Forest. He returned to the States in June 1931 and served as Assistant Supervisor and Supervisor of the Cumberland, Unaka, and Pisgah Forests. In July 1934, when the new Region 8 was created, Mr. Kramer was chosen to head us the Division of Lands. In September 1935 he was promoted to Assistant Regional Forester, R-8, from which position he was transferred to Washington.

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Former United States Senator Henry W. Keyes died at his home in North Haverhill, New Hampshire, on June 19. From 1921 to 1936, Senator Keyes was a member of the National Forest Reservation Commission.

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H. R. 10605, which authorizes an appropriation of $2,000,000 for development and procurement of rotating wing aircraft, was passed by Congress during the last few minutes of this session. It is anticipated that the Forest Service will participate in the experiments. Particularly in connection with fire control, the Service has long been interested in the development of the hovering type of aircraft.

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The bill creating the Olympic National Park out of the Mount Olympus National Monument and a somewhat greater acreage of other National-Forest land was signed by the President on June 29. In addition to definitely establishing a National Park with an area of 649,000 acres, the bill authorizes further additions thereto by Presidential Proclamation of National-Forest lands or of lands donated to or purchased by the United States, with a provision that the Park shall not exceed a maximum area of 898,292 acres. The bill stipulates that in the exercise of this authority the President shall first notify the Secretary of the Interior, the Secretary of Agriculture and the Governor of the State of Washington of contemplated action and shall permit them to submit to him such information and recommendations in relation thereto as they deem advisable, but does not require their concurrence in the enlargement of the Park.

The bill provides for the protection of all valid and subsisting claims and in relation to a small area in the northwest corner of the Park will permit mineral development, under rules and regulations of the Secretary of the Interior during a period of five years following approval of the act, otherwise, the area will be administered under National-Park principles, which means no logging, grazing, hunting or exclusive rights of occupancy.

The first bill to create the Park, introduced in 1936, described an area of 728,360 acres. Its immediate successor H. R. 4724, described about 643,000 acres. Its successor H. R. 10024, initially described an area of 988,000 acres. The State Planning Board recommended a revised Park boundary which would have included 452,000 acres. As finally enacted the bill is the equivalent of H. R. 4724 plus about ten sections additional along the northern edge. Governor Martin's proposal for a medium sized National Park, supplemented by a "Forest demonstration area", to be administered by the Forest Service, was not adopted.

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There is accumulating evidence to show that forest fire prevention is receiving widespread recognition by private enterprise as a newsworthy theme for feature articles, radio broadcasts, and motion pictures. Following the examples set by forest conservation agencies, many individuals and corporations are now carrying on the campaign.

Outstanding June examples of this healthy trend in each of the three major publicity outlets were "Hell and High Timber" by Corey Ford and Alastair MacBain in the June 25 issue of "Collier's," the "Big Town" chain broadcast of June 28, and the current movie short on adventures of news reel cameramen.

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One of the most interesting comments received on the report of the recent Personnel Officers' Conference was made by Mr. Ismar Baruch, Chief, Division of Personnel Classification, Civil Service Commission, which follows:

"Thank you for the report you recently sent me showing in summary the conclusions arrived at by the recent conference of field personnel officers of the Forest Service. I was naturally much interested in their stand as to position-classification, and I am gratified to note that it is undeniably sound. Paragraph 1 on page 17 is particularly worthy of preservation through continued quotation."

The paragraph referred to reads:

"1. The group recognized the importance of sound application of classification as a tool for the accomplishment of:

(a) Improvement of employee morale through assurance of equal pay for equal service.

(b) Clarifying organization structure and eliminating confusion as to lines of authority, placement of responsibility, and assignment of duties.

(c) As an incentive device to encourage full assumption of responsibilities."

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A publication especially for the Trail Riders of the Wilderness is being issued by the American Forestry Association under the title, "The Trail Rider," beginning with the June issue. Trail Riders - past, present, and future - are urged to contribute.

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I. H. Sims, of the Northeastern Forest Experiment Station, was transferred to the Washington Office effective July 1. He will be assistant in the Division of Forest Influences specializing primarily in the research phase of the forest influences program.

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"Taming Our Forests" and "What Forests Give" by Martha B. Bruere are described as "thoroughly welcome" in the "New York Times Book Review" of July 3. The reviewer concludes her remarks with the following comments: "This is the best presentation for young people of forests and forestry, their place in conservation and the part they have played in the history of the American people that has yet been made. Mrs Bruere's pamphlets should be in every school and public library and wise parents and teachers will see that boys and girls have their own copies. Valuable in themselves, they will also serve to call the attention of young people to the fact that the government is issuing in easily obtainable form material that is interesting and practical."

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FOREST SERVICE U S DEPARTMENT OF AGRICULTURE

SERVICE BULLETIN

CONTENTS CONFIDENTIAL

> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES. IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT *** THE TIME HAS COME FOR A CHANGE. AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY **** TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES, WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER
>
> Theodore Roosevelt

Vol. XXII No. 15 Washington, D. C. July 25, 1938

THE FOREST SERVICE AS AN EMPLOYER AND LANDLORD

By Walter B. Dillon, Kisatchie

I have just finished reading the little brochure (too good to be called a pamphlet) entitled "The Lower One Third and The Forest Service", written by Martha Bensley Bruere, who evidently is "one of us". I have also read the Chief's flyleaf comment.

My first reaction is a very pleasant one as I sit back and go over again mentally the things I have read. It is a well written treatise of a very ticklish subject and the facts and figures presented are well marshalled. If every thinking man in the Forest Service will read it and give it the deep thought it deserves, I am sure that our minds will at least be started on the right track toward a possible solution of this, our own portion, of the economic and sociologic problems now facing us as a Nation.

BUT, and this "but" looms very large, whenever you attempt to solve problems dealing with political economy and sociology you immediately go up against something looking like that old gag of the schoolroom which has to do with irresistibles meeting immovables. Perhaps that is why I was conscious all through the treatise of something held back, a hidden meaning, a constant fear of expressing in their full potency the underlying facts hidden deep beneath the surface of the stated facts. I was somewhat disappointed in the end because of this, and my final conclusion was that here was another fine treatise on known economic and sociologic effects with no definite or concrete causes given. Even remedies were more or less faintly advanced, as though the fear that permeated the text was great enough to prevent a clear and unmistakable summary of the causes and effects.

I am convinced that the author has a pretty good conception of these causes and effects and probably has some definite ideas on what should be done about them; first, to relieve the effects, and, second, to remove the causes. But she remains silent on the second phase at least. Why?

This same fear seems to dominate the utterances of many others who have written these late years on similar subjects, men and women both within and without the Forest Service. Only one seems to have really dropped a bombshell. I refer to Mr. Tinker's article in the November 1 issue of the Service Bulletin, on which I commented some time later. That article was more in the nature of a challenge, a clarion call to action, a dare to all timid souls to speak out and not equivocate.

This "Lower One Third" is a new one on me. Quite some time back when I was a boy and young man and was in much closer contact with political economy and sociology and kindred toys the terms common to those subjects were usually at my tongue's end. The phrase I knew best was "the submerged tenth" which referred to that hopeless stratum inhabiting the slums of large cities. I was particularly well acquainted with those in Hinky Dink's and Bathhouse John's bailiwicks in Chicago and the Bowery and lower East Side in New York. They are probably the "unemployables" referred to by the WPA in their letters on unemployment lists and quotas.

I presume, nay, I hope that the President includes this submerged tenth in his lower one-third. I would hate to think that 43-1/3% of our population is below the subsistence level---33-1/3% is bad enough.

Granting that the submerged tenth is confined largely to the big cities and comes under the heading of "unemployable", the problem, so far as they are concerned, is not one with which the Forest Service is immediately concerned. It is more a problem for the sociologist on the theory that this element is hopelessly sub-normal and cannot be rehabilitated. However, the same basic cause that created the submerged tenth has created the entire lower one-third. Hence, by removing the cause, if that is possible, we will assist in preventing further encroachment above the one-third and perhaps rehabilitate the 23-1/3% between the one-tenth and the one-third.

What is the basic cause creating the submerged tenth? What increased the one-tenth to one-third? I do not think it will be hard to answer the latter question. Lack of jobs, wasn't it?

If I am right in my contention that this is the basic cause for the increase in that portion of our population who are now, as the President says, "ill nourished, ill clad, ill housed", what are we going to do about it? How are we going to restore these jobs? I say "we" in this instance meaning the whole Nation.

Much was said by Mrs. Bruere of the part played by the lumbering industry in creating "casuals" and I gathered from her remarks that we of the Forest Service must bear our share of blame. To this I raise strenuous objection. We have never been free to run our lumbering operations to suit ourselves. We have always been hamstrung by laws as well as customs in the handling of these casuals, to say nothing of the fact that we really have no control of them. This is true not alone in the lumbering business but in other branches of our work as well. I would even go so far as to include fire control in this category, though it would not be so applicable there. Suffice it to say that we have never been an employer in the sense that we have ever had control of a going business with the possible exception of during the war. Remember that point: DURING THE GREAT WAR.

Therefore, we cannot be accused of creating casuals, but whether or not we created them is beside the point: they are with us and that is the real point. Furthermore, we also have in our midst---right in the Forest, I mean---the problem of the one-third. Worse than that, I find from my own observations that we are contending with the submerged tenth.

No one would have been able to make me believe that last sentence up to about four years ago. My Forest Service experience had been on the western fronts where an individual properly belonging to the submerged tenth was an exception, a family mistake as it were, a biological throwback from some roaming Romeo who may have climbed the wrong balcony. Four years in Region 8 have shown me that the deep recesses of the forests can produce submerged tenth conditions fully as terrible as the worst slum areas in large cities. Or perhaps I should say, I found these people on land that was once within the deep recesses. Those fine, upstanding rugged American individualists who passed this way so many years ago in the guise of lumbermen saw to it that the deep recesses were totally removed. Where mighty pines once reared their crowns to the sky and gave shelter, subsistence, and recreation to man and beast, not one stick remains over thousands of acres. I have seen wasteful logging in the West and even in Michigan and Wisconsin, but never before did I view such viciously brutal denudation of forested areas as here in Louisiana.

Here is one of our immediate problems. How we approach it, how we handle it, will in a large measure determine our own fitness as an employer and as a landlord. It will not be economics alone on this land but sociology as well.

If I am right in classifying these people in the submerged tenth, there is little we can do for them either as a landlord or as an employer. Our only hope lies in finding a few of them who have not become completely submerged and who may respond to the right treatment. For them I am willing to experiment in rehabilitation both in our capacity as an employer, and as a landlord. But the balance of them must be treated as wards of the State and the Nation and they must not be allowed to destroy us and our work as well as themselves.

Suppose, therefore, that we succeed in rehabilitating both the land and the derelicts left upon it; suppose that we arrive at our millenium of sustained yield. What then? Can we guarantee that this timber will be cut at the right time, that is, when it is at its greatest value in terms of board feet?

Think that over before you answer. Reread Mr. Tinker's thought provoking article in the Service Bulletin. I am certain you will agree with me to this extent at least: we will not be enabled to cut this timber and keep these men steadily employed unless the Forest Service is the owner of the JOB of lumbering and not merely the owner of the crop of timber.

If we remain dependent on our ability to sell the timber, we remain as helpless as landlords and employers as we were in 1929 when the big balloon blew up and as we are today after nine years of trying to plug up the vast gaps with emergency employment.

Only recently the Kisatchie had a taste of what I am driving at. A tract of timber was advertised widely with no takers. Another tract of "blow down" timber was advertised with the same result. Why? Because we wanted a price which the lumbermen felt would preclude a profit for them. Grant that the lumbermen were right they could not make a profit but grant also that our price was fair and reasonable. Which viewpoint is of greater value from the position of the Forest resident whose subsistence depends on the cutting of this timber? Which is the greater value from our own position as employer and landlord?

If the mills refuse to buy and shut down, what happens to both the Forest residents and the timber? If we attempt to log it ourselves, we must also build a mill or take over the closed plant. If we shrug our shoulders in helpless surrender, we will have another relief program on our hands and create more and more of the submerged tenth or the lower one-third. We cannot pass the buck. We must face the facts. Nor is this illustration farfetched.

In my comments on Mr. Tinker's article I stated that there was dynamite in his proposal. I hesitate to touch it myself. I am no master mind nor the seventh son of a seventh son. Yet Mrs. Bruere asks us to sit down and think out a solution to Forest Service landlord and employer problems and Chief Silcox hopes we will help solve the social problems concomitant therewith. Well, I have scribbled off a lot of words in my feeble attempt to find a solution and always I am forced back to the conclusion that the best we can do is alleviate the immediate pains of our tenants and residents unless we are willing to plunge into the greater fight for a national readjustment of supply and demand.

Are we ready for that? If we are, there is certainly no better organization than the Forest Service to lead the parade. The very nature of our work fits us right into the scheme of things. We have many avenues of approach: timber, cattle, housing, woodcrafts, transportation, and mining, as quick examples.

If we are to solve our own problems as an employer, we must first determine what our business is and its limits. Are we merely tree growers and protectors or are we lumbermen? Are we conservationists only of water resources and stream flow control, or is it our business to manage the products we have conserved? Are we merely shepherds of the hills, or are we masters of all that the ranges breed?

You can answer these questions to suit yourself but remember that you are also being asked to solve the problem of the lower one-third on the basis of your reply

My own reply is that we are masters of our own domain and that the sovereignty rests in the whole American people. By Act of Congress they have ordered us to conserve the timber and water resources still remaining in the control of the Nation. By plain inference I take this mandate to mean also that we shall manage these resources to the best possible advantage of all of the people and not of the favored few.

All along we have been dealing solely with the lower one-third but I am now concerned not with the one-third but the whole Nation. The submerged tenth can be eliminated as unfit to govern, but how about the other one-tenth up there in the economic stratosphere. Are they not in their way equally as decadent, fully as inbred and as completely out of touch with the normal life of the Nation as to deserve the same isolation treatment? We laugh at other Nations because they still maintain degenerate nobility in rich idleness but our own newspapers are daily reminders of what happens to young folks whose blue blood has become so thin that only wild parties can amuse them any more and whose marriages are mockeries. I am not a moralist by any manner but I do draw the line at the sacrilege of common standards of decency.

Let us, then, eliminate both ten percents from our caluclations and deal with the eighty percent. They are not all "ill nourished, ill clad, ill housed" but every one of them feels the pressure of the fear of these things and not one of them can rest safely in the security of his present possessions unless his Government is strong enough to resist the drag downward into the submerged tenth and the slow economic strangulation from above.

I wonder if the Forest Service can ever solve its own landlord and employer problems without making national problems of them. How long could we survive, even if we were successful in employing every Forest resident and creating the most ideal living conditions for him, if the rest of the Nation remains jobless, moneyless, and hopeless?

PRESIDENT ROOSEVELT'S STATEMENT TO NEWSPAPERS UPON SIGNING OMNIBUS FLOOD CONTROL BILL (H. R. 10618) JUNE 29, 1938

"I have approved the bill with some reluctance. It authorizes but it does not appropriate the money for a large number of public works on rivers and harbors, these authorizations being in addition to other very large authorizations already on the statute books but for which money has not yet been appropriated. It is unnecessary for me to emphasize the importance of carrying on a large and continuing program to eliminate floods, lessen soil erosion, continue reclamation, encourage reforestation and improve navigation. In so far as this bill provides for an improvement in jurisdictional control over the properties involved and a more adequate control over consequential power developments it is a definite step in the right direction. It is not a step in the right direction in the set-up provided for general government planning. I am in doubt as to the value of some of the projects provided for and it is unwise to place recommendations to the Congress solely in the hands of the Engineering Corps of the Army in some cases, and of the Department of Agriculture in other cases. Coordination of all such public works involves a wider survey and the examination of more national problems than any one bureau or Department is qualified for. In these respects future legislation will be vitally important in order to give to the Congress and to the country a complete picture which takes all factors into consideration.

"For the coming year, however, I shall try to obtain this coordination by asking for complete consultation between all groups of Government agencies affected. In this way the whole of the problem can be made more clear. I have, therefore, approved the bill because it accomplishes a number of good things, with, however, the same reservation that its deficiencies should be corrected as early as possible."

"NORTHWEST PASSAGE"

By H. M. Shank, Idaho

A lot of Forest Service people read Kenneth L. Roberts' "Rogers Rangers" in the Saturday Evening Post a year and a half ago and a lot more, along with a million or so other Americans, have since read the current best-seller, "Northwest Passage", of which "Rogers Rangers" is simply part one.

Metro-Goldwyn-Mayer Company is bringing the entire story to life in color on the screen with the exterior setting on the Payette Lakes and the upper Payette River in the immediate vicinity of McCall and on, or adjacent to, the Idaho National Forest. The scene in which the rangers' raft goes over the falls with so nearly disastrous results and possibly one or more of the whale boat scenes will have their setting on Fall River on the Targhee National Forest or in the southwest corner of the Yellowstone National Park. The march through the swamp, St. Francis Village, and the human chain scene are all being made at or near the north end of Payette Lake. Michili Mackinac is located on Cougar Island, Crown Point is on Luck's Point on the east side of the Lake, Fort Wentworth and Camp Four are on the River below the Lake.

Remarkably little faking has been used in building the sets and use of people, as the extras, who waded endlessly in water two to five feet deep with a temperature of 34° F., can testify. Every set is truly a work of rustic art and two have undoubtedly had a cost into five figures. Impartial reviews rate this as one of the most elaborate and expensive pictures to be made in 1938 with local cost estimated by officials at $4,000 per day with the present organization. Filming has been in progress a month, will last through July and be resumed in September, and probably not finished before November in order to get autumn and winter scenes.

With the proper build-up and sequence which the film will have, it is going to be a thriller such as movie fans see only rarely. The attack on St. Francis Village was so good in some of the individual scenes as to cause onlookers to applaud spontaneously. Real Indians--some four hundred of the tribesmen of Chief Joseph--were brought from the Nez Perce Reservation at Lapwai. Jim Thorpe, the former Carlisle Indian Athlete, has been used as a major-domo in herding them around.

It is hardly necessary to say that a major local boom has resulted. Of more interest to local Forest Officers is the attendant publicity which is being given Idaho and the Idaho Primitive Area (Pardon me, Bob, - Wilderness Area).

The M.G.M. scouts who came to McCall in April and were piloted to prospective sites on a sled behind a tractor over four feet of snow were a bit dubious at first, particularly with the lake covered with ice until May 6. Several other sites in the Pacific Northwest were examined and the fact that they are here is its own recommendation for the quality of local primitive scenery.

Illustrative of the fickleness of figures, the writer prepared from some Department material, previous to the arrival of the M.G.M. scouts, a concise tabulation of expected sunshine at McCall during the months of June to November, showing a rather marked advantage over other prospective sites. And June broke the all-time precipitation record! Typical California weather! But we were grateful for it when they burned St. Francis Village.

METICULOUS CCC

Everyone who has filled out an accident report knows that there are about 30 questions to be answered. Most people ignore most of them, unless particularly irate at the other party, to the wreck. But an Oregon CCC truck driver who struck a cow was meticulous about the matter. After the question, "What signals did the drivers give?" he wrote: "I honked my horn and the cow rang her bell." (R-6)

A POSSIBLE SOLUTION

By O. M. Serley, Supply Depot

This is somewhat out of my line of work, but the review of the President's message, "National Forest Problem," in the Service Bulletin, April 4, 1938, prompts me to offer for consideration one solution for securing perpetual harvest of timber on the now privately-owned commercial forest lands.

Consider the usual logging and milling operations in Montana, California, and the Pacific Northwest,--the admitted failure of private logging operations to perpetuate forest yields, the abandoned logged-off lands, the increasing local tax burdens, etc.

The program:

1. Permissive legislation to allow the Forest Service to take over all these private lands, the Forest Service providing adequate fire protection, cutting methods, etc., for sustained yields, for the greatest good of the nation and these local communities as well as the lumbering industry.

The Forest Service is not only capable and ably qualified to do this work, but it has also the confidence and good will of the public.

While there may not appear any possible legal methods under the laws given in our General Administration Manual, the enlarging and expanding of Sec. 7 of the Clarke-McNary Law is suggested.

2. The logging-lumbering industry to retain its right to harvest one crop over a period of, say, 40, 60, 80, or more years. The 20-year limit in the Clarke-McNary Act is undoubtedly too short a time for these Douglas fir forests.

3. The Forest Service not to pay any moneys for these lands and timbers, except isolated tracts necessary to block out holdings.

However, in its agreements with these private holdings, it does assume the local tax burdens on these timbered lands for the period of time of reserved cutting rights.

This paragraph "3" is the keystone for the transfer of the private titles to the Forest Service, and, in the meantime, the maximum regrowth of the tree crop.

After fulfilment of "2" and "3", the lands and the growing timber belong exclusively to the Forest Service, local taxes are extinguished and in their place, say, the 25 percent annual return made to the States for schools and roads.

Consider what such a program would accomplish on the forest economics of the United States. It could answer the points raised in the President's message, by possibly enlarging National Forest administration activities with a CCC program for the next 5 to 15 years far greater than the past five years.

This also opens the way pointed out in "The Lower One Third and the Forest Service" that such "execution of this program will contribute to successful treatment of local and national problems of unemployment, to stabilization of committees, and to social welfare generally."

Once necessary legislation is secured and the program started in one area or State, it will spread so rapidly to all commercial timber regions that the Forest Service will be taxed to its limits administratively.

No doubt, before such legislative action is taken, much preliminary work may needs be done as to tentative plans and possibilities and its reception by the lumber industry in a selected area, as, for instance, northern California, or western Montana.

RADIO AND FOREST PROTECTION

By C. E. Randall, Washington

During the past few months, the Federal Communications Commission has been studying the problems involved in the use of radio communications in the protection of forested areas of the United States. The demands in the use of the shortwave band are so great that further allocations to forestry agencies of frequencies in this portion of the radio spectrum will be very limited. According to the Commission, no frequencies in the 2500-3500 kilocycle band are available for exclusive allocation. Sharing frequencies already assigned, when interference can be avoided, is therefore the only possibility. Short-wave frequencies now allocated to the U. S. Forest Service are all on a shared basis. This portion of the spectrum is congested by heavy demand for use by aviation, point-to-point communication, and by the Army, Coast Guard, and other Government agencies.

In the ultra-high range, however, provision has been made for the use of ten frequencies for State and private forestry stations for radio communication necessary for the prevention and suppression of forest fires. This is a new service, according to the Commission. The frequencies allocated to use by forestry agencies are:

30,940 kc 31,340 kc 31,580 kc 31,940 kc
35,740 kc 35,940 kc 37,460 kc 39,420 kc
39,740 kc 39,940 kc

The Federal Communications Commission will receive applications for assignment of these frequencies up to October 1, 1938, when it is expected that all existing experimental licenses will be converted to permanent licenses. Licensees and applicants have been requested to arrange for the proper choice and use of frequencies to minimize interference, and to file agreements on these matters with the Commission.

On June 22, the Commission promulgated new rules and regulations covering emergency service and providing for the permanent allocation of frequencies between 30,000 and 60,000 kilocycles, which include those allotted to forestry stations. Following are rules of special application to forestry agencies:

"Sec. 110.08 Forestry Station. The term "forestry station" means a station used for communications necessary for the prevention and suppression of forest fires.

"Sec. 111.04 Forestry Stations. Authorizations for forestry stations will be issued to municipal, State, or private organizations which are legally responsible for the protection of forest areas.

"Sec. 111.27 Assigned Frequencies Non-Exclusive. No frequency available to a station in the emergency service will be assigned exclusively to any applicant. All stations in this service are required to coordinate operation so as to avoid interference and make the most effective use of the frequencies assigned.

"Sec. 118.01 Scope of Service. Forestry stations, although licensed primarily for communication with mobile forest fire fighting units, may transmit emergency messages to other mobile units such as fire department vehicles, private ambulances and mobile police units in those cases which require cooperation or coordination with forestry service activities. In addition, such stations may communicate among themselves provided: (1) No interference is caused to mobile service and (2) Only those communications are transmitted which are necessary for the operation of forestry service.

"Sec. 118.02 Power; Modulation. The maximum power to be assigned for the use of forestry stations shall be 50 watts. The transmitters of forestry stations shall be modulated not less than 85 percent, nor more than 100 percent on peaks."

An informal hearing on the question of allocation of radio frequencies to State and private forestry agencies was held at the Federal Communications Commission in Washington on June 29. Representatives from a number of the State Forestry Departments, the Forest Service, and other organizations attended.

THE EDITOR DISCOVERS

Among the Acts of Congress disapproved by the President are the following:

S. 3774, to authorize cooperation between the United States and the State of New York in the protection of certain forest lands. The President said, "This is not a proposal to add private forest lands to a State or National Forest in the interest of conserving our national timber resources in order to insure adequate supplies of timber for posterity by the application of scientific sustained yield management practices, but is one to add to and protect a State natural park, which is not a proper function of the Federal Government."

H. R. 2711, to create a Division of Water Pollution Control in the United States Public Health Service. The principal objection to this measure was that it "provides for the legislative assumption of responsibilities of the executive branch and therefore runs counter to the fundamental concept of our Budget System, that the planning of work programs of the executive agencies and their presentation to Congress in the forms of estimates of appropriation is a duty imposed upon the Chief Executive and not one for exercise by the legislative branch."

H. R. 10650, to provide for a 5-year building program for the U. S. Bureau of Fisheries. The President said, "In view of the large existing program of the Bureau of Fisheries and in view of recent approval of an allotment of $1,055,350 from the recently enacted Public Works Administration Act of 1938 for improving and extending existing fish cultural facilities of the Bureau, I think that further authorizations should wait for a while."

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Appropriations for the fiscal year beginning July 1 to carry out the CCC program total approximately $286,000,000 for all activities, according to a recent press release issued by the Office of the Director. Approximately $276,000,000 will be used for operating the CCC camps in the continental United States, while $7,000,000 will be used to finance CCC activities on Indian Reservations and $3,000,000 is allocated for operations in the Territories of Alaska, Hawaii, Puerto Rico and the Virgin Islands. These funds will provide employment for an aggregate of approximately 530,000 persons, including enrollees, reserve officers in charge of the camps, the technical personnel which supervises the work programs, educational advisers, and other technical personnel needed in the maintenance of the 1,500 camps.

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In cooperating with the Surplus Commodities section of the Agricultural Adjustment Administration in its attempts to discover new uses for cotton, the Forest Service tested a special cotton open-mesh fabric developed by the AAA. This material was tested at a number of the Forest Experiment Stations and for some uses was found to be very desirable. The report of the Lake States Station shows that the fabric gave satisfactory results when used for the following purposes:

For furnishing shade on seed beds. By using a triple layer of the material a satisfactory shade was furnished 1-0 white spruce seedlings. The material compares very favorably with the slat-wire snow fence commonly used for the purpose.

As a screen to protect recently sown coniferous seed beds against depredation by birds and rodents. The cost would probably compare favorably with the cost of 3 or 4 mesh galvanized "hardware cloth" which is generally used at present.

As a mulch for lawns and as a protection against erosion of slopes recently seeded to grass. When used as a mulch on lawns, a double thickness of the material is best and could be used for several years, if properly dried and stored after each year's use. When used as a protection against erosion, the material would be left in place. For this purpose it is the cheapest and best material used to date.

For making traps. These traps were used for the live trapping of prairie chickens and Hungarian partridge. The material was exceptionally good for this purpose, for it had sufficient resistance to prevent injury to the bird when it became panicky from the confinement and flew against the side of the trap. There is a much greater chance of injury or death to the trapped bird when wood or stiff wire is used.

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"Any Forest Officer interested in or working with wildlife programs should have a personal copy of the Third North American Wildlife Conference Proceedings if he will not have other ready access to one," says John H. Hatton of the Division of Wildlife Management. This issue, according to Mr. Hatton, will be the best one published so far and may be had for $1 postpaid, which is less than publication cost. Personal or official orders should be placed promptly with Mr. Henry P. Davis, Secretary of the American Wildlife Institute, Investment Building, Washington, D. C.

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Region 3 reports that employees of Standard Stations, Inc., in Arizona, "when servicing a car, empty the ash tray and in doing so comment to the driver that this is a dry country and that when driving through the National Forests it is wise to use the ash tray because fires are easily started."

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According to the Yale Forest School News: "Professor Chapman is making a steady recovery from the after effects of the attack of pleuropneumonia, complicated with a streptococcal infection, which laid him low in Urania (Louisiana) early in April. He has spent almost all of the time, since his return to New Haven on May 28, undergoing treatment at the New Haven Hospital, but hopes to take up residence at 194 Canner Street in the near future."

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SERVICE BULLETIN
CONTENTS CONFIDENTIAL

AUG 13 1938 ★
Agriculture

> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES. IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT ××× THE TIME HAS COME FOR A CHANGE. AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY ×××× TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES, WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER
> Theodore Roosevelt

Vol. XXII No. 16 Washington, D. C. August 8, 1938

NEW CHEMICAL PRODUCTS FROM LIGNIN

By E. C. Sherrard, Forest Products Laboratory

Ever since the process of making pulp from wood was discovered lignin has been considered the ugly duckling among wood components. It is looked upon with disfavor because it has no physical structure that suggests an immediate use, as is the case with cellulose which occurs in the wood in the form of silky fibers that are immediately ready for many uses when freed from their encrusting materials. In addition to being unattractive, it has an ornery disposition, resisting as it does most efforts to learn more as to its chemical make-up. A fair knowledge of the chemistry of cellulose has made it possible for chemists to convert it into the many products that are now considered commonplace, such as the finest silks; transparent and many colored films; exquisitely colored, molded products; paints and lacquers of every hue; and countless other products that are met with on every hand.

Lignin, on the other hand, has always been figured as a waste and gotten rid of as expeditiously as possible.

The chemical nature of cellulose, which we know to be made up of simple sugars, is crystal clear as compared to that of lignin. So far, lignin has offered no handhold as to its structure and composition and while many theories have been advanced as to its chemical constitution, none of them has been definitely proved. It is extremely resistant to most chemical treatment. Oxidizing agents, such as nitric acid and hydrogen peroxide, either do not affect it at all or convert it completely into carbon dioxide and oxalic acid. The Laboratory has applied other reagents, such as chlorine, bromine, and hydriodic acid, which react with it to a degree but in such a way as to tell very little about its structure or the small units that go to make up its whole. While some progress was made in learning more about the chemical nature of the material, none of these reactions indicated a method whereby lignin could be converted into other compounds and outstanding progress was not achieved until lignin was subjected to hydrogenation.

Most of the above-mentioned reactions indicated that lignin is not fully saturated and therefore, that, under proper conditions, hydrogen might be added. As a result, lignin in dioxan was placed in a bomb in the presence of hydrogen and subjected to a pressure of 4,000 pounds per square inch at 250° C. for several hours. Upon removing the material from the bomb, we were surprised to find that instead of the brown powdery material we had been accustomed to for so many years, it was a transparent liquid. Upon fractionation, this liquid was separated into methanol and four constant-boiling and well-defined chemical products. The lower boiling fractions are liquids having an aromatic odor similar to some of the terpene derivatives. The third fraction is crystalline when separated from the other three. The fourth fraction or residue is a very high-boiling compound which solidifies on cooling to a hard, glasslike, resinous material. All are insoluble in water but soluble in most of the common organic solvents. Fraction No. 1 is a transparent mobile liquid with an odor similar to menthol and having a toxicity equivalent to that of creosote. Fraction No. 2, 4-n-propylcyclohexanol-1, is a transparent liquid about as viscous as glycerine and somewhat less toxic than fraction No. 1. Fraction No. 3, 4-n-propylcyclohexanediol-1,2, is a crystalline solid and, as mentioned before, fraction No. 4, 3-(4-hydroxycyclohexyl)-propanol-1, is a glasslike residue that remains after the distillation of the first three fractions. The latter can be dissolved in many of the common lacquer solvents and forms a film upon the evaporation of the solvent. All four products give promise as plasticizers for the lignin plastic developed at the Laboratory. Methanol was obtained in quantities larger than any hitherto obtained. The process would be too expensive, however, for the production of methanol alone.

With the exception of methanol, these compounds are all new to the chemical world and until their properties are determined, no value can be placed upon them. At present our reward is the thrill that comes with converting a material that has been of no value into pure, well-defined, new chemical compounds, and the hope that an industry will eventually be based upon lignin, the outcast of the pulp and paper industry.

PLANNING FOR FLOOD CONTROL

By E. N. Munns, Washington

FLOOD CONTROL: Magic words these: words that stimulate our imagination. Words that bring sharply to mind, mighty rivers out of their banks, their turbulent mud-laden waters destroying homes and ruining countrysides. Words that cause us to recall people wet, poorly clad, cold and suffering from hunger, people drifting in the swirling waters, appealing for help. Stimulating words these: words that rouse us to action. Words that develop interest in constructive programs to calm the angry waters, to prevent destruction, to safeguard lives, to restore peace.

To the average man on the street, flood control means strong levees, deep channels, and great reservoirs. It has meant a swelling torrent confined to its banks. It has meant security behind a barrier big enough, high enough, and strong enough to keep old man river from his door. But this sense of security is shaken at times when old man river just doesn't keep away from his door. It's at such times he remembers that levees have about reached their maximum heights; that channels cannot be deepened indefinitely; that reservoir sites are relatively few in number; that reservoirs themselves are costly, and ofttimes too expensive to build. At such times he demands more safety, safety for himself, his loved ones, his home, his property, his civilization. In his search for additional protection he turns to the land. Is not the land the place where the waters first gather? So our American citizen has asked for flood control at the source, the control of little waters. And because the management and treatment of the land affect the run-off waters, the Department of Agriculture is drawn into the picture.

The Flood Control Act of 1936 recognizes land treatment as a real factor in flood control. Although a new statement of policy, such an objective is no new story to the Department of Agriculture. Prior Congressional Acts have recognized different phases of water control: the Weeks Act of 1911 authorized purchase of lands at headwaters of navigable rivers; the Clarke-McNary Act of 1924 authorized protection and reforestation for flood control; the Soil Conservation Service Act of 1935 enumerates flood control as one purpose of the new Bureau; a long line of Forest Service appropriation acts specify water control as an objective.

The Omnibus Flood Control Act goes farther than these other acts; it outlines a definite program for the specific purpose of flood control. It places responsibility for flood control operations on the land directly in the lap of the Department. And by so doing, and by omitting any reference to Bureaus, it establishes the flood program as a Departmental program in which the resources of the various Bureaus are called into play.

Such a program requires integration of work of different Departmental agencies, and correlation of work so that a unified watershed program can be developed. Consequently, new problems have arisen. How can the Department reorient its various activities so as to achieve correlation and integration within the framework of its existing organization and make possible the preparation of a program for a complete watershed, including mountain and valley lands, forests, range, and crop lands, public and private lands with all kinds of owners and operators?

Two steps have been taken. First, a Flood Control Coordinating Committee has been established. This brings actively together those Bureaus in the Department most intimately concerned with the land action program. This includes both the Forest Service and the Soil Conservation Service, primarily direct action agencies. Because the Flood Control Act also specifies that flood control programs must rest upon an economic base, the Bureau of Agricultural Economics has been added. This Committee suggests policies and recommends programs to the Secretary through the Office of Land Use Coordination. Other bureaus of the Department having an interest in the flood problem but not so immediately involved in the action program or in its economic base are advisory to the Committee in the fields of their special interest.

Second, because the program is so huge (Congress has authorized studies of watersheds in every State and in Alaska) and because correlation begins on the ground, Regional Field Flood Control Coordinating Committees have been established throughout the country. Membership on these field committees is the same as on the main committee with one or two exceptions to meet local situations. These regional field committees recommend the specific local program needed and develop the local plans for the work. Members of these Committees are the Regional Conservators of the Soil Conservation Service, the Regional Economists of the Bureau of Agricultural Economics (Land Utilization Division), and the Directors of the Forest Experiment Stations.

Now the Flood Control Act of 1936 does more than merely establish the Department of Agriculture as the agency to do supplementary flood control on a watershed basis. It also does more than merely specify the watersheds in which the Department should work. By using terminology which has been applied to definite and recognized procedures followed by the Corps of Engineers, it suggests the three steps involved in the program. These steps are: (1) a Preliminary Examination of a watershed to determine the feasibility of a flood control project; (2) a Detailed Survey of the critical areas in the watershed to develop the specific action program and to determine its cost and benefits; and (3) the actual Flood Control Operation. The first two are essentially planning, the third is action.

The first step in the procedure is a Preliminary Examination of a watershed. This examination by the Field Coordinating Committee determines the extent of the flood problem, the damages done, the flood source areas, and whether or not there appears an opportunity for an upstream program. This study is made rather quickly, but with sufficient care and detail to establish within reasonable limits that the flood problem is of sufficient magnitude and that conditions in the watershed are of such character to warrant a land program. It starts with three assumptions: (1) That the public has a definite responsibility for sponsoring a flood control program; (2) that the benefits will exceed the cost (unless lives and social security of the people are directly involved); and (3) that the local people can be sufficiently interested to participate actively in the program.

In determining these facts for a given watershed, the Field Committee obtains certain factual data as to the crops, cover, soil, topography, geology, and land use within the area, analyzes data on the precipitation and run-off, determines the frequency of floods and the extent of their damage, and looks into problems of occupancy and use of watershed lands that bear on the flood problem. In this examination, flood source areas are located and the possible application of remedial measures suggested. Public hearings are held (in cooperation with the Army Engineers) to obtain local viewpoints and to determine who wants protection, what kind, where, and why, and whether and to what extent local articipation will be forthcoming. Estimates are prepared as to the portion of the watershed on which a detailed survey seems needed.

On the basis of their findings, the regional field committee decides either that no flood problem exists that can be cured by an economic upstream control program, or that such a problem does exist and can be cured. A brief report on the watershed is prepared with the committee's suggestions and transmitted to Washington. Copies of this report are then circulated among all the interested Bureaus for comment and criticism. Upon the basis of these comments and its own review, the Departmental Flood Control Coordinating Committee determines whether or not the report is acceptable. If so, the field committee's recommendations are upheld. Should the report be favorable to a detailed survey of the entire watershed or certain parts of it, a recommendation for such a survey is made to the Secretary. Should the report be unfavorable, it must go to Congress to discharge the responsibility Congress placed on the Department by asking for the specific study. In such cases, rather full reasons must be given for the action to avoid controversy with those who may be interested in particular local situations.

The Flood Control Act just passed by the Congress authorizes the Department to do work on the watershed of any stream on which a flood control or navigation project has been authorized for construction by the Army Engineers. Congress has thus said that in those areas where the Army already has work under way or authorized, Agriculture can assume the existence of a flood problem and damages that justify an upstream program. In those watersheds, all the Regional Field Committees now need to do is to indicate where the flood source areas are, and determine the cost of a detailed survey. In other areas, a complete preliminary examination must be made.

Is it possible that places exist where even a preliminary examination can show that upstream control is not justified? Yes, indeed! For example: floods may occur in tidal estuaries due to exceptional high tide and regardless of any device man might build upstream; floods may occur when hurricane winds blow the water out of a lake onto the land as was done a few years ago in Southern Florida; floods can occur in a stream discharging directly into the ocean or a great lake without causing any appreciable damage as might be the case with small streams in the sparsely settled part of the lower peninsula of Michigan; floods may occur even in a well maintained, densely forested drainage but the damage caused may be so inconsequential as not to justify special treatment.

(to be continued)

THE ELIMINATION OF MAN-MADE FOREST FIRES

By Mrs. DeWitt Nelson, Nevada City, California

(Awarded first prize in an essay contest on forest fires conducted by Mrs. H. G. Bogert, National Conservation Chairman for the General Federation of Women's Clubs. Mrs. Nelson is the wife of the Supervisor of the Tahoe National Forest.)

Dawn -- a rustle in the pines -- and from his distant peak an alert lookout sees the first wisp of a tell-tale smoke. Noon -- that dawn breeze has become a gale, that first wisp a raging inferno. Dusk -- frightened wild creatures flee before the flames, -- organized ranks of men labor in the stifling air, -- and -- before another day, weary fire fighters load their tools and Forest Rangers record another fire controlled, but there lie thousands of acres of blackened, smoking ruin -- a testimony to the carelessness of man.

It is a paramount task of our generation to so educate the people that man is no longer the forests' greatest risk, but rather, the forests' staunchest friend. It is a difficult task, but not an impossible one. There is a need for coordination of effort by those organizations of thoughtful adults throughout the country who are interested in solving the problems of Conservation. The National Federation of Women's Clubs is one of the most powerful of such organizations and should take the lead in bringing about such cooperation.

The elimination of man-caused fires requires a reduction of hazards along highways, railroads, and around towns and buildings in forested areas. This can be done efficiently under the supervision of Government agencies, but it requires the appropriation of greater funds by Federal, State, and private industry. Fire prevention throughout lumbering operations comes under this particular phase of hazard reduction.

The second problem is less tangible, and more difficult -- that of adult education. Forest users can be divided generally into two classes, the first including those who go to the forests for recreation, who buy timber, who depend upon the forests for watershed protection, or who are in some way aided by them in the business of making a living. These can be reached by visual education and by designated observances such as Fire Prevention Week and Conservation Week.

There also must be continued progress in recreational development in publicly-owned forests for, giving people a place to play and to know Nature and, at the same time, be comfortable, is a major step in forest appreciation and, therefore, forest care.

In the second group are those who by inheritance or training believe in light-burning for better grazing (a theory which has been disproved), for easier hunting, or for malicious mischief. For these we must resort to law. In most sections of the country existing fire laws are adequate, but they must be more rigidly enforced, and offenders punished more severely.

There is a channel for the education of this group, and in this same channel lies the ultimate answer to our problem. It is the education of our youth.

The boundless energy and enthusiasm of children is akin to the surge and power of Nature. Children are impressionable, eager to learn, and ideas which are attractive to the child are absorbed and they do incline the tree of adult life. In school, and in youth organizations, children can be given practical lessons in woodcraft and taught those precautions which are fundamental, if we are to eliminate man-caused fires. There they can learn the falacy of light-burning, and many fathers have been converted to the cause of fire prevention by their children.

One Ranger has a Junior Forest Ranger group among the boys and girls of his community. They display their knowledge and their simple badges with pride.

Striving for Utopia perhaps -- and yet -- another dawn -- another generation, and the reseeded burned-over area has been nurtured by kindly seasons. A breeze in the pines, and timid creatures nestle within the forest, protected and secure. There lie thousands of acres of beautiful young timber -- a testimony to the thoughtfulness and care of man.

OVER THE HILLS AND FAR AWAY

By Fred Cleator, R-6

More and more interest is awakening in the Pacific Crest Trail System which is being constructed across California, Oregon, and Washington.

Its greatest value is not to the people who actually travel it but to those thousands of people who anticipate it. Their minds do not picture the discomforts of cold, hard beds, of storms, of hot slopes, of mosquitoes. They envision the brilliant meadows, the flash of a trout, uplifted rock, the blue ice of a glacier, a deer in the glade, an endless vista of remote beauty.

The Y. M. C. A. expects this year to finish an explorer's relay from the Mexican to the Canadian Border, started two years ago.

Last summer and fall, a small group of Boy Scouts from Portland made the trip from Mount Hood to the Mexican Border, starting with riding horses, finishing in an old, horse-drawn hack with loaded pack horses stringing behind.

Now the Rotary Club of Pasadena, California, is sponsoring explorers' trips for youngsters over this trail. Just lately they gave medals to six youths who had climbed ten or more of the major mountain peaks on the route. The ascent of all 24 of the selected peaks calls for a gold medal. The Pasadena Club now is trying to interest other Rotarians in the Pacific Coast States to do likewise.

We are informed of about 350 talks and lectures, partly illustrated, given by explorers who have traveled parts of the Pacific Crest route. These are entirely complimentary to the Forest Service. Only by special request can we get these Pacific Crest Trail travelers to criticize. We know there are plenty of defects in the Pacific Northwest sections of the trail. We are getting them ironed out gradually, for this trail is going to become one of our best "ports" in those "storms of protest" which are beginning to engage Forest Service multiple use planners and developers.

I've worked -- on and off -- planning, promoting, locating, and axing (some) on this this trail since 1920. Strangely enough, I still like it.

MEN IN GREEN

"During the last five years a new group of professional men has come to Missouri, a breed of men trained for the outdoors," says an editorial in the Missuri Ruralist (July 9). "They are men in green. These men came with the creation of Federal forest areas and now there are many of them at work in this State. The trim green uniform of the Forest Rangers is a symbol of efficiency. They are doing good work. It has been the Missouri Ruralist editor's good fortune to travel the forest highways and climb the Ozark hills with the Rangers and their Supervisors and he has been impressed with the efficiency of organization, the high type of manhood, and the esteem in which foresters are held by residents. It was a fine thing for Missouri when Federal Forest Service came to this State. Millions of acres unfit for any purpose other than forestry now are under State and Federal control in Missouri. It is unfortunate that this work could not have begun 20 years ago. Had that been done we still would have some fine timber left. As it is, marketable trees have all but been destroyed and it will take a half century before the forests can be built back...We like these 'Men in green'. They get things done!"

LIVESTOCK GRAZING AND WATERSHEDS

Below is a quotation from a three-day course of grazing lectures delivered before the "Camp Ranger School", Hot Springs, California, October 16-19, 1909, by John H. Hatton, then Assistant District Forester in charge of Range Management, Region 5.

"While we are primarily interested in National Forests for their possibilities in timber and water conservation, and the vital relation these resources bear to various agricultural pursuits and industries in the territory adjacent to them, we must bear in mind that one-third of the public grazing lands are included within these National Forests, thus practically giving the Forest Service control over one-third of the public grazing industry in this country. But in any discussion of grazing policy on the National Forests we must keep in mind one thing: that grazing must be considered more or less secondary in National Forest interests and economy. In other words, these National Forests are established because they have large possibilities in timber and water conservation. Portions of some of them are now chiefly valuable for grazing and probably always will be, but in no case can we say that grazing is the only factor which would enter into the policy as adopted for those particular portions of a Forest. Grazing might stand out so prominently that it would be difficult for us to see anything else, but the effect upon water supply always inserts itself for relative consideration, even if timber is absent. So I want to emphasize right at the beginning of these meetings this key-note to all our grazing policy: that however prominent the grazing work may be, under and around it all is the question of its relation to our timber and water supply. On the other hand, we are expected to see that our grazing resources are wisely and conservatively used and developed just the same as our wood and water."

ERRATA

H. G. White of the Lake States Forest Experiment Station has called our attention to two incorrect references in the list of "Articles by Members of the Forest Service Appearing in Outside Publications", printed in the June 27 issue of the Service Bulletin. He says:

"The article by F. J. Miller should be listed as follows: 'The Influence of Mycorrhizae on the Growth of Shortleaf Pine Seedlings. Tables. Jour. Forestry 36: 526-527, May 1938.'

"The article on 'Fence Posts a Million-Dollar Crop in Michigan' on page 525 of the same issue of the Journal of Forestry was prepared by Carl J. Holcomb of the Lake States Forest Experiment Station."

THE EDITOR DISCOVERS

A summary of forest planting in the United States through the calendar year 1937, recently issued by the Division of State and Private Forestry, shows that 3,289,206 acres so far have been planted by all agencies in the Continental United States, 280,710 acres of which were planted during 1937. These figures do not include planting by the Prairie States Forestry Project, the Soil Conservation Service, and the Tennessee Valley Authority. By agencies, the figures for 1937 are as follows:

Forest Service on National Forests	- 155,457	acres
States	- 41,141	"
Municipalities	- 11,632	"
Industrial Organizations	- 8,716	"
Other Organizations	- 1,519	:
Schools and Colleges	- 1,185	"
Individuals	- 61,060	"

The total area planted on the National Forests through the calendar year 1937 is 919,915 acres. This figure excludes all experimental planting and direct seeding, but includes both planting and direct seeding undertaken for reforestation of National Forests.

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"Winter Wonderland", a one-reel film on winter sports in the National Forests produced by Emerson Yorke, has been released for distribution and has been acclaimed one of the best films ever produced by the Forest Service. It has been previewed by a number of prominent motion picture men, and several requests already have been received from owners of theater circuits for the use of the film. It will be distributed in both the 16 and 35 mm. sizes and will therefore be available for theater and local showings. "Winter Wonderland" was photographed last March in the White Mountain National Forest area. Supplementary shots of winter sports activities in other National Forests have been added to produce a Nation-wide effect. Principal actors in the film were recruited from Forest Service personnel.

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According to a Department of the Interior Press Release, continuation of the present schedule of fees charged by the Department of the Interior for the grazing of 10,000,000 head of cattle, sheep, horses, and goats on the public domain, is provided in revised rules and regulations recently approved by Secretary Ickes. Under the schedule, a charge of 5 cents per head per month will be made for cattle and horses, and 1 cent per head for sheep and goats, for grazing on the Federal range, while a fee of $\frac{1}{4}$ of 1 cent per head per day will be collected for cattle and horses, and 1/20th of 1 cent per day for sheep and goats, while crossing the Federal range in transit to other areas.

Administrative Orders transferring the following land use projects from the Farm Security Administration to the Forest Service were signed by Acting Secretary M. L. Wilson on July 18:

Northeast Georgia Project (LA-GA-7) comprising 37,468 acres in Habersham, Stephens, and Banks Counties, Georgia; to be added to the Chattahoochee National Forest.

Magazine Mountain Project (LA-AK-1) comprising approximately 130,000 acres in Logan and Yell Counties, Arkansas; to be added to the Ouachita National Forest.

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A study of plant disease spores, pollen, and other microscopic objects carried by air currents far above the earth will be directed by Fred C. Meier, principal pathologist of the Department and chairman of the Committee on Aerobiology of the National Research Council, according to a recent Department of Agriculture press release. He will make airplane flights this summer over the United States and adjacent waters. Sampling the air up to high altitudes with a modified "sky hook", he will bring back living spores of fungi and bacteria for laboratory study.

Spores collected on dirigible and airplane flights over the United States have given valuable information on the aerial movements of the spores of microorganisms that cause such plant diseases as black stem rust of grain, white pine blister rust, cedar rust of apples, and downy mildew of onions. Facts thus obtained should serve as a guide in devising improved methods for the control of certain fungus, bacterial, and virus diseases of plants.

(Doctor Meier was engaged in carrying on his study aboard the "Hawaii Clipper" when it mysteriously disappeared on July 29.)

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Dr. Charles H. Herty, well-known chemist and forester, died of a heart ailment on July 27 at Savannah, Georgia. He was perhaps best known for his work in connection with the development of pulp and paper processes with southern pine and for the development of a special type of turpentine cup for the naval stores industry. The influence he exerted on forest practice in the South was far-reaching.

A. L. MACKINNEY (1904-1938)

By Henry Bull, Southern Forest Experiment Station

Arland Lee MacKinney, in charge of forest management research at the Southern Forest Experiment Station, was accidentally drowned in Bayou Terre aux Boeuf, near Delacroix Island, about 25 miles southeast of New Orleans, Louisiana, at about 2 p.m., July 4. The tragedy occurred toward the close of a three-day fishing trip made by MacKinney, five companions from the Station, and two other men from New Orleans.

MacKinney was standing on the side deck of the fishing lugger when in some way he lost his balance and fell overboard. C. F. Olsen, also of the Station, grabbed MacKinney's belt as the latter was falling but could not also hold on to the boat and fell in with MacKinney.

Olsen lost his grip on MacKinney's belt as they hit the water and the two men came up separately. After removing his sun glasses and helmet, Olsen made a valiant effort to rescue MacKinney, who thrashed around frantically, unable to swim. Olsen again grabbed MacKinney's belt but MacKinney grasped Olsen around the neck and the two men went down together. In the meantime, an alarm had been given promptly and the boat engine was reversed at once, but the speed of the boat and the outgoing tide had already opened up a wide gap between the boat and the men in the water. Olsen, handicapped by heavy leather boots, freed himself just before the first rescue skiff reached the scene and was pulled into the skiff when only one hand and forearm remained above the water. Immediately afterward, five other men reached the scene and dived for MacKinney. These efforts were unsuccessful, and although the water was dragged constantly during the remainder of the afternoon the body was not recovered until the next morning. Burial took place July 7 at Hendersonville, North Carolina.

MacKinney graduated from the forest school of Cornell University with a B.S. degree in 1925, and from the Yale School of Forestry with an M.F. in 1927. He first entered the Forest Service in July 1925 at the Northeastern Forest Experiment Station, later transferred to the Southern Forest Experiment Station, and obtained a formal Civil Service appointment as Junior Forester at the Appalachian Forest Experiment Station in July, 1927. MacKinney spent slightly more than 10 years at the Appalachian Station, rising to the position of Silviculturist, and specializing in the field of forest management research. In December, 1937, he was promoted to Senior Silviculturist in charge of Forest Management Research at the Southern Forest Experiment Station.

MacKinney was intensely and enthusiastically interested in his research work, and in an administrative capacity he was very aggressive.

Usually rather quiet and reserved, he had a pleasing personality which made him countless friends both in and out of the Forest Service. His passing is mourned by all who knew him professionally or personally. He is survived by his widow, Mrs. Helen Bly MacKinney, and two children, a son 7 years old, and a daughter 3 years old.

FOREST SERVICE U S DEPARTMENT OF AGRICULTURE

SERVICE BULLETIN

CONTENTS CONFIDENTIAL

> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT xxx THE TIME HAS COME FOR A CHANGE AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY xxxx TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES, WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER
>
> Theodore Roosevelt

U. S. Department ... 1938

Vol. XXII. No. 17. Washington, D. C. August 22, 1938.

WHAT! MORE PLANS?

If I did not know the rough and ready field-going outfit so well, I'd have the nerve to sign this plea; but the "hired-out-to-be-tough" gang of Forest Officers knows too many dark canyons and high rim-rocks to suit me.

Seriously, though, or at least partly seriously, - back in the good old days we Forest Officers dealt largely with the big and almost exclusive three: timber sales, grazing, and special uses. Fire control was the only joker, the big bad boy who, then as now, wrecked work plans and job loads by dealing off the bottom of the deck and by coming up with the fifth ace in the form of a lovely little fire in the back country, with the humidity at 6 and the wind at 40 per. So then, there you were, Mr. Ranger, on the Tough Creek Fire when according to the August Trip Schedule, Trip Q, fourth day, you should have been camped at Seclusion Lake. What a break, -- for the fish in Seclusion Lake!

Those were the good old days when Supervisors used to ride a horse occasionally and knew some of the permittees by name. Even in those relatively simple times, however, with only the big three and bad boy fire to cope with, we made errors in judgment and mistakes, like the mortals that we are, that are cropping up every now and then to embarrass us. Despite the fact that we had good timber management plans, fine range allotment plans and some good special use and recreation plans, we were going wrong on land use because we had not fully correlated these plans with each other. And remember this was in the good old days when we still had time to think a little, instead of being overloaded with work.

But what now? Foresters have extended their repertoire of technique, five-dollar words, and tricks to such an extent that rehabilitation, organization camps, government logging, land use planning, State and private forestry, government-owned and operated resorts, ERA, CCC, and so forth, just roll off their tongues as easily as marking axe, manual, Form 26, and diary.

Granted that our wisdom has made great strides and that our experience has grown broad during this period of emergency programs and increased responsibilities! We have progressed so far that I've even heard Rangers hint, and not too delicately, that the Supervisors of the good old days could not even hold down the job of Assistant Ranger on their districts today. So, it is with some trepidation that I venture any statement that might seem to question the intelligence, foresight, or judgment of the present corps of Forest Officers. No one will deny that the foresters of today are doing a really swell job of assimilating the ever increasing work load which is being dished out to them. Nevertheless, I feel that only a superoptimist would expect, or even hope, that foresters could solve the interlocking and often mutually exclusive demands that are made on the National Forests by the complicated, present-day problems. Unless we definitely plan for multiple land use, correctly applied to every acre of Forest land, we are going to be snowed under by the very rapidity of present changes.

So what! A usable, multiple land use plan is needed - one which will be readily usable and available for use - one which will be graphic, so that the Supervisor can show it to Forest users and applicants. A plan that Forest users and applicants for Forest privileges can see and understand - one that they will be impressed with, and that we will be proud to show them.

Such a plan must be a map plan - not a mass of technical dissertation and description. Why not take the bull by the well-known horns and tackle this problem in a thoroughly practical manner - feet out of the ground, firmly on the ground, but never off the ground?

This multiple land use plan must show the preferred use or classiifcation of every acre of Forest land, leaving nothing to chance or hasty decision made on the spur of the moment. The first step would be to designate on a Forest base map, by appropriate colors, the land at present formally classified by approved plans such as timber management, grazing allotments, wilderness areas, game sanctuaries and range, special uses, etc. A simple system of cross-hatching could easily show dual or triple use, such as grazing on a timber sale or wilderness area.

Next comes the real job. Prepare a classification of the areas of the forest that are not covered by the above approved plans. This job would have to be done by the Supervisor and his Rangers, together with Regional and Washington Office men who are familiar with the conditions on that Forest - preferably men who have actually served on the Forest. If such a group puts its heads together and really concentrates, a fine classification job would result. No one would expect the first attempt to be perfect; but by a careful analysis of the present and a shrewd estimate of future trends, a very usable and acceptable plan would come into being, and the forest would be classified. Naturally such a group, working on a classification problem, would undoubtedly question some of the present classifications and would record their recommendations for changes - which should merit the very careful consideration of the officer authorized to change a present classification.

What would be the value of such a plan? Why would it be better than the judgment of the Forest administrators? First, the group would be thinking in terms of all-Service multiple land use and would be more apt to discern the danger of a certain land use than an administrator who is thinking of many unrelated problems. Furthermore, these men will be concentrating on a job without the disconcerting personalities angle. When these men do their advance planning and select Rock Creek Lake as the site of a future organization camp, their minds and judgment will not be disturbed by Senator X's letter saying that he would appreciate favorable action on Mr. Z's application for a resort on Rock Creek Lake. Nor will their decision to classify a large area for a wilderness be influenced by the wholly selfish and illogical demand of the GO-GET-EM Commercial Club for a highway through the heart of that area. Likewise, game range could be much more easily set aside before the potent Maverick Cattle Corporation applies for additional range.

In short, the plan will tend to beat applicants to the punch and in addition will make refusal easier and more satisfying to the applicant. When Supervisor F. S. rejects Mr. Doe's application for a summer home by showing him the plan (prepared several years ago) calling for a campground on that site, he eliminates any feeling on the part of Mr. Doe that the Supervisor is refusing him personally. Furthermore, Doe cannot help being impressed with the businesslike way in which the Forest Service is doing things. And it might even be that the plan would show some allowable summer homes in another location that would be acceptable to Doe!

So much for the preparation and operation of the plan. We have admitted that no plan can be perfect, and that this one will have to be changed at times. Well, the Regional Forester should have the authority to change or amend the plan when he is convinced that such action is justifiable. I'd gamble, however, that there will not be many changes. Forest Officers will think twice before recommending to the Regional Forester that the plan be changed and when Forest Officers of today think twice they do not make too many mistakes. It is the hasty, "with-some-local-pressure-behind-it" decision that is apt to be a boner".. The plan will pay for itself time and time again in the first several years and will be the basis for an ever increasingly perfect plan as the few inevitable errors get ironed out of it.

There it is -- another plan and report! I know that many Forest Officers have an acute case of "reportophobia" - and it's not all their fault either. Rather it is often caused by overexposure to reports. This is just the first salvo. We have lots more ammunition to sling, so don't stick your neck out too far when you answer this -- and you will?

WHY THE PUBLIC PAYS?

By Joseph C. Kircher, R-8.

The Forest Service has always prided itself on its business methods and, if given a chance, will handle public affairs in a businesslike fashion. During the past several years this chance has not always been given. The custom seems to have grown for the public to take up everything with Senators and Congressmen. This has caused not only delays but much extra work both for members of Congress and for the Government Departments.

Let me cite an example! A community within the Forest wants some free timber to build a church. In the old days a member of the community would have contacted the Ranger who either would have handled the transaction or would have referred it to the Supervisor for issuance of an administrative use permit. The whole transaction would have consumed possibly an hour's time.

But what happens now? Or at least what happened in a case of this kind? A church member talked about it to the postmaster, who instead of telling the man to see the local representative of the Forest Service, wrote not alone to the local Congressman but to the two Senators besides. One of the letters was referred direct to the Forest Service in Washington, the other two to the Park Service. In the Forest Service the transaction finally came to the attention of the Supervisor who issued the permit 23 days after the postmaster's first letter. In the meantime the transaction has taken 16 letters and one telegram by the Forest Service, two letters by the Park Service, and at least six letters by the Members of Congress, all started by three useless letters by a postmaster. No wonder the public complains that the cost of Government is high.

Possibly there is a lesson here for us also. The members of the community where the whole thing started might have gone to the Ranger in the first place, had the Forest Service been sufficiently "on the map" there. Is it not a fine example of the need for additional public relations work, in order to show local people that the Forest Service is a business organization which will deal fairly and efficiently with the public without the necessity for Congressional influence? Think it over!

KREUTZER COMPLETES FORTY YEARS IN FOREST SERVICE

William R. Kreutzer, Supervisor in charge of the Roosevelt National Forest, with headquarters at Fort Collins, Colorado, celebrated his 40th anniversary in Government forestry work on August 10. Mr. Kreutzer has a longer period of service to his credit than any other forester in the Government service. His initial appointment was issued August 8, 1898, by W. T. S. May, Superintendent of Forests for Colorado and Utah. It stated that Mr. Kreutzer was appointed Forest Ranger to protect the public forests from fires or any other means of injury to the timber growing in said reserves. A more formal appointment was later issued by Thomas Ryan, Acting Secretary of the Department of the Interior. This stated that his salary would be $50.00 per month and that the appointee shall keep a horse constantly on the reserve for use in case of necessity. With this appointment, Mr. Kreutzer received instructions and was told, as he expresses it, "to take horse and ride as far as the Almighty would let me and to get control of the fire situation on as much of the mountain country as was possible."

He was first assigned to the Plum Creek Timber Land Reserve, now a part of the Pike National Forest. Mr. Kreutzer says, "There were no timber sales, grazing permits, or other customary business procedures of the present National Forests. Forests were being slaughtered at an enormous rate by trespassers. Forest fires followed in the wake of trespass cuttings. These fires raged for the most part without any attempt to extinguish them. In fact, few tools or equipment were provided to fight forest fires."

"In 1898", Mr. Kreutzer says, "I was given a three gallon galvanized water bucket, a single-bitted axe, a square-pointed, short-handled shovel, a long-handled rake, and a file, and was told that this was sufficient fire equipment for a Ranger in charge of 300,000 acres of forest land."

On the Plum Creek Forest Reserve, Mr. Kreutzer fought the first forest fires and got control of them. He prepared the first timber trespass reports and also received the first applications for grazing permits, taking 43 applications during his first year. He also stopped the operations of several gangs of cattle thieves.

In 1901 Mr. Kreutzer was transferred to the Battlement Mesa Forest Reserve where he found the same problems of trespass and over-grazing, which he immediately started to remedy. He initiated the first snow board measurements which were forwarded to the late Frederick H. Brandenburg, Forecaster of the U. S. Weather Bureau, Denver, and were made available for public use.

In 1905 Mr. Kreutzer was transferred to the Gunnison Forest as Forest Ranger in charge. He was promoted to the position of Forest Supervisor on January 1, 1907, and served in this capacity on the Gunnison Forest until 1921, when he was transferred to the Roosevelt National Forest, in his present position.

Mr. Kreutzer was born on Indian Creek, west of Sedalia, where his father and John Kepple, another pioneer, operated a cattle ranch. The ranch was located near that of former Governor Elias Ammons, father of Governor Teller Ammons. Kreutzer's grandfather had been a forester in the Black Forest of Germany for years so that his interest in forestry was natural, and it was largely because of family tradition that he was willing to accept a job at $50.00 a month, which required him to furnish his own horse and equipment and live with saddle and pack outfit during the greater part of the year. He was not quite 21 when he received his appointment. It was a tough life - - people of that period resented any interference with what they considered their rights, including the cutting of timber without restriction, the grazing of cattle or sheep without any attempt at management, the occupancy of lands illegally. It required courage and physical endurance to handle the job, as well as tact not to antagonize the local people. He was successful and emerged as a finished forest administrator. In addition to being a graduate of the school of practical experience, Mr. Kreutzer has taken correspondence courses in business administration and law, the latter a four year law course with the LaSalle Extension University of Chicago. -R-2 Release

P. J. O'BRIEN RETIRES

On Wednesday afternoon, July 27, P. J. O'Brien finished his last day with the Forest Service, receiving handclasps and best wishes from his many friends. Coming to Missoula in December 1908 with the original group who traveled out from Washington to establish the Regional Office here, "P.J.", during the past 30 years, has been known as an indefatigable worker and an extremely thorough practitioner of the law. As our officer in charge of law instruction and enforcement he gained the full confidence and respect of all those with whom he dealt. The meticulous care with which he assembled his facts and the straightforward interpretations he placed on various phases of the law are most indicative of his whole character.

At the age of 70 "P.J." is retiring with ideas of beginning all over again. Still measurably hale and active physically, and with his ideas flowing as clear as ever, he would like a small office somewhere in Missoula, together with a moderately small practice. Intensely interested as he is in the social and economic welfare of the group recently segregated under the caption of "the lower one-third", it is suspected that mostly the office is to serve as a place where "P.J." can occupy his time with his books and his friends. To these ends everyone with whom he has been associated here in Region One most sincerely wishes him well. -Northern Region News.

HOW NOT TO BE A FOREST RANGER

(As told by a Forest resident to one of today's Rangers, with a comparison intentionally flattering to the new rather than the old.)

"Time was when a young man just out of school with a nice new suit, big hat, and pretty spurs rode in to some ranch trying to look as much like Paul Revere as possible; rode as near into the house as he could get his pony to go; shouted for someone to call off the dogs; hit the doorstep on the run, barging inside and telling all and sundry who he was and what he was there for; sized up all the stoves and stovepipes, chimneys, woodboxes, matchboxes, ashtrays; muttered something about people who live in such places and, if no one had thrown him out by that time, came down to earth some time later and explained what it was all about, providing anyone had patience enough left to listen to him.

"One of our early Rangers here antagonized all of us so much that we formed a sort of protective association among ourselves. He put all of us on the defensive. He seemed to threaten the sanctity of our homes. He assumed authority that no man ever had as yet in America, and tried to feed it to us poor ignoramusses and make us like it. He amused me and maddened me, tried to kid me, bribe me, ridicule me, belittle me, intimidate me, bluff me,--but no beans! So he finally decided that he really must do something about it. He even dared me to report him, or 'rat' on him, as he called it. Ha, ha!

"I liked him; I hated him; I pitied him; I tried to advise him; I tried coaxing, joking. But no beans that way! I laughed at him; I tried insults to make him fight; I told lies to get him to appeal to his superiors for a showdown. But still no beans! He was the indirect cause of many misunderstandings and hard feelings among all of us. Yet I hold no hard feelings toward anyone. In fact, this letter of yours makes me happy about the whole thing, as Claude Stroud says.

"Well, nuf sed! You and I have understood each other ever since you first came to my place. So count me as one who is ready and willing to help in any way possible to get along. I am with you 100 percent. So full steam ahead Captain, and stop and see me first chance you get."

CHIEF RESCUES RANGER

"Just what would you advise?" asks the Medford (Oregon) MAIL TRIBUNE of Chief Silcox, calling his attention to the smelly problem presented in the following news clipping: "A forestry problem that might be taken for solution all the way up to Chief F.A. Silcox in Washington confronts District Ranger Homer Hixon at Union Creek. Hixon applied for help to Rogue River National Forest headquarters here but Supervisor Karl L. Janouch's office was ominously silent.

"The problem arose two weeks ago when a big and oderiferous skunk took up its abode under the ERA camp house at Union Creek. It sleeps by day and prowls by night, returning always to its home under the house. The odor has become so strong the ERA men are kicking. They can scarcely eat, much less sleep. It's like having a skunk in bed with you, they declare. The men tried boarding up the house but the skunk dug under. Hixon thought of trapping the animal but the men said the scheme wouldn't work. Hixon heard skunks could be caught easily by the tail but none would volunteer for the job, not even Hixon. Now Hixon is frankly stumped. He's looking for suggestions. If a solution doesn't appear soon, he'll write to Chief Silcox, he declares."

After giving the problem the solemn consideration it merited, the Chief advised the MAIL TRIBUNE, to wit: "This is a serious case, and, of course, I want to make sure the Ranger has help. What do you think of the following as a solution?

'Whenever a Ranger discovers a skunk
Under his house or under his bunk,
He should always send in an appeal to the Chief
To furnish the means of affording relief.
The Chief will at once send out an Inspector

To act as the Ranger's especial protector.
The Inspector, with roving assignment,
Will get the skunk's tail in proper alignment.
With quick eye and skilled hand he will yank the said skunk
From under the house or under the bunk,
Will swing him around and toss him away;
With alignment of tail no odor should stay,
But if he is caught with some odorous juice,
His roving assignment will be of great use.
He can rove by himself and air in great spaces
Until he's prepared to handle new cases.
The Ranger, relieved of his troublesome guest,
Can settle himself down and take an earned rest.'"

The MAIL TRIBUNE had the last word, however, -- a word of appreciation! "Thank you for your poetic solution of the skunk menace. It was great and it made a very humanizing story. It is stories like these that show the United States Forest Service is an institution of human beings and not a governmental agency of bureaucrats. Other governmental agencies could be humanized likewise to advantage. It is this human touch that brings to the Forest Service the public cooperation, respect, and admiration that it enjoys throughout the country."

BEAUTY VS. BILLPOSTERS

Why wouldn't it be a good idea for some longheaded and altruistic manufacturer instead of marring the landscape with signboards, to take over a hundred or so sections of barren public highway, plant them with trees and shrubs, and maintain the planting? A modest sign would give him credit. Instead of billposters he would create beauty for the weary roadside pilgrim.

--House & Garden

THE EDITOR DISCOVERS

Messrs. Silcox and Tinker will attend the annual meeting of the Association of State Foresters at Boise, Idaho, on August 29 to 31. The Chief is now visiting the Prairie States Forestry Project and later will spend a week or so in the Pacific Northwest, in and around Portland, returning to Washington about September 15.

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The Office of CCC Activities has been created as a unit in the Office of the Secretary with a Chief who will have general Department-wide responsibility for the administration of CCC programs carried on by the several bureaus. Fred Morrell has been designated Chief of the Office of CCC Activities of the Department and the Secretary's representative on the Advisory Council of the Director of the Civilian Conservation Corps. L. C. Stockdale has been designated Assistant Chief.

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With the transfer of Cloyd L. Stewart from the Departmental service to the field on August 1, C.W. Boyle assumed the duties of contact representative between the Office of the Solicitor and the various Bureaus of the Department, in matters relating to the acquisition of lands.

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The U. S. Travel Bureau which is under the supervision of the National Park Service will open a field office in San Francisco in the near future. The Bureau now maintains a field office at 45 Broadway, New York City, and the two offices, working in conjunction with the New

York and San Francisco Expositions, will aid materially in stimulating travel in the United States. Nelson A. Loomis has been designated to represent the National Park Service in the execution of a travel promotion program in cooperation with various travel and State officials.

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Work has been initiated upon the production of a motion picture, "Four Thousand Gifts of the Forest", proposed to be filmed in Dufay color for use at the San Francisco and New York Expositions in 1939. Dupont has already promised cooperation in preparing displays of its rayon and cellulose products from wood. It is planned also to contact masonite, bakelite and other makers of wood derivative products for like displays.

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Authorization has now been given for administrative promotions for CCC employees during the fiscal year 1939 under the same rules and limitations as apply to employees paid from regular appropriations.

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The Forest Products Division of the Department of Commerce has issued a booklet on "American Hardwoods and Their Uses" in line with its current program of preparing a series of booklets on American woods and their uses. It is written in popular style with many illustrations.

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Vernon Cox, accused slayer of Junior Forester Royal Nettleton of Region 9, was convicted of three game law charges in a Crandon, Wisconsin, court and was fined $150 or given the alternative of spending 120 days in jail. Cox was found not guilty of a manslaughter charge last June but the charges of which he was recently found guilty were hunting without a license, hunting deer during a closed season, and possession of a rifle in deer country five days prior to the opening of the season.

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A small inexpensive seed dewinger has been developed by Nurseryman Jack May at W. W. Ashe Nursery in Region 8. Planting Regions have been invited to send samples of uncleaned seed with wings attached for trial in the dewinger.

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The Government's participation in the New York World's Fair will be handled by a commission appointed by Congress composed of:

Edward J. Flynn	
Henry A. Wallace	Secretary of Agriculture
Daniel C. Roper	Secretary of Commerce
Frances Perkins	Secretary of Labor
Robert F. Wagner	Senator from New York
Wallace H. White, Jr.	Senator from Maine
J. W. Wadsworth, Jr.	Representative from New York
Sam D. McReynolds	Representative from Tennessee
Matthew J. Merritt	Representative from New York

Federal activities will be represented by twelve themes. The Forest Service will be represented in the Conservation, Food, Shelter, Recreation, and Territory theme exhibits.

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The Secretary of Interior has been authorized by Congress to expend up to $25,000 to match, dollar for dollar, a like sum to be expended by the State of California for the acquisition of a roadway leading up to the Muir Woods National Monument near San Francisco. This highway legislation is aimed at acquainting travelers with the redwood paradise and wildlife sanctuary in this grove of primeval trees.

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SERVICE BULLETIN
CONTENTS CONFIDENTIAL

> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT xxx THE TIME HAS COME FOR A CHANGE AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY xxxx TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES, WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER
>
> Theodore Roosevelt

Vol.XXII No. 18 Washington, D. C. September 5, 1938

EXPERIMENT FOREST

By Theodore Krueger, Black Hills

The Experiment Stations test theories or develop new methods in timber management, range management, watershed management, and fire control. Studies in properties and uses of wood are taken care of by the Forest Products Laboratory. However, studies in organization, forest administration, cost accounting, forest improvements, and public relations are still done by the costly large scale trial and error method. In case someone in authority believes that a certain type of improvement, plan of work, cost accounting scheme, or something else is just the thing, a whole Region or the whole Service organization must try it out. Out goes the old and in comes the new idea or scheme. Soon it is discovered that the new idea is not practical, costs too much for results obtained, or needs adjustments here and there to be of any value.

At other times we seem to be bound by tradition which makes it hard for us to give up old ideas or habits and we fail to adopt new methods or devices.

In still other cases we act like a child seeing his mother sweep up an old broken toy with other rubbish. The boy thinks he just can't get along without it; so he rescues it. The toy had its use at one time, but now the child has probably outgrown it. At any rate, it is of no value to anyone except the one boy who still likes to play with it.

Each change in procedure, type of improvements, methods of approach to problems, if given to all Forests without thorough previous testing, may mean a considerable expenditure of funds and possible decrease in efficiency or morale of the field force, if the thing doesn't work. Therefore, I would suggest an experiment or testing Forest where new ideas in organization or administration, old ideas in new form, types of improvements, methods of approach in educational and information work, safety devices, etc. can be given a thorough trial before they are adopted as standard for the Service.

In my opinion the Experiment Forest should be an independent unit such as the Forest Products Laboratory, with a Director in charge. With an adequate staff, there then would need to be no hesitation in trying out new ideas.

PLANNING FOR FLOOD CONTROL

(Continued from August 8 issue)

By E. N. Munns, Washington

(The first step in planning the flood program was a preliminary examination of a watershed to determine the existence of a flood problem and to locate the flood source areas. In a previous paper this phase of flood control was outlined.)

The Detailed Survey of the watershed is the second step in planning the flood control program. It has for its primary purpose the determination of what needs to be done in a watershed to retard run-off and to control erosion in the interest of flood control. It determines for each flood source area, and for the watershed as a whole, the kind of measures necessary, the effects of such measures on other problems, the cost of the proposed work, and the benefits to be derived.

Under the Detailed Survey the specific land action program is determined. This calls for an exacting study of the watershed, and especially the flood source areas. Whereas the findings of a Preliminary Examination are largely based on opinions, secondary data and general observations, the findings of a Survey must be based upon demonstrable facts and critical analysis. The field data must be obtained through adequate sampling, study, and a certain amount of investigation. An actual field survey of conditions in the watershed is therefore necessary.

This field survey starts first with a study of the aerial photographs of the watershed. Under a stereoscope (and with experience in its use) one can obtain from the air photographs a knowledge of surface and cover conditions without setting foot out of doors. Such a study of the flood source areas will reveal the "sore spots" - those areas where land abuse has reached a critical stage; viz., the scalds where sheet erosion has taken the soil, gullies which have cut deep into the earth, improper plowing or terracing of fields, deposits of sand and gravel in stream beds and reservoirs, understocked stands where fire or cutting or both have resulted in real impairment of cover, overgrazed areas, and other such abused areas that to the trained observer tell the story of man's misuse of the land. (Unfortunately during 1938 relatively few photographs are available. A large area is already under contract and pictures of whole States will be available next year.)

The study of the air photographs is supplemented by a study of ground conditions. Agronomists and farm management men sample the sore-spot farms to determine what it is that has led to their present condition. They investigate whether or not the organization of the farming enterprise is adequate to provide a living for the farm family, whether the size of the unit is sufficient, whether the farm practices are correct, whether the soil is suited to the crops produced, whether the crop land should be retired to grass and trees, whether even with good conditions the farm should be continued, etc., etc. In the study of the farm, the soil, the crop, the farm practices, the income, the possibilities of outside employment - all are included.

Grasslands and forests are similarly studied: The grasslands, to determine whether or not and to what extent the grassland has deteriorated under use, whether abuse has developed from inadequate water or management practices, whether livestock pressure is too great, whether reseeding is necessary, etc. The forest is studied to determine whether or not planting is necessary, protection is inadequate, cutting, logging, or slash disposal practices need modification, whether grazing should be permitted and to what extent, etc.

The study also includes an investigation of possible supplemental "up-stream engineering" measures necessary to aid the vegetative cover. These measures might mean terracing, contour trenching, bank erosion control in the minor stream channels, construction of dams or retarding basins in the larger streams, land slide stabilization, etc. In any event, because ours is primarily a land measure, engineering works must be subordinate and supplemental to the land program.

After the facts for a sore-spot area and flood source tributary have been collected it then becomes necessary to ascertain what changes in land use or occupancy will help solve the flood problem, what modifications in current land practices are necessary, what supplemental measures are possible, what kind of an integrated program should be adopted. Finally, that combination of practices which will produce maximum benefits at lowest cost is determined. However, because the most important measures may affect the income of the local residents, may involve the financial structure of the local government, may affect labor possibilities, may involve a shift even in the population, it is essential also to study the problems of local government, the economic problems due to changes in productivity, and the social problems of the people themselves.

The final plan presented for a unit watershed (or part of one) must recommend a program, show costs, and outline benefits. If there are alternate plans, the proposals must also be given. The plan must outline for each part of the watershed requiring attention, the nature of the treatment proposed, which one or ones or which combination of treatments should be utilized, where and how applied, estimated costs, the physical, economic and social benefits to be derived from them, the various forms of land use and adjustments necessary, and the justification for the measures proposed. Then because such a program will afford opportunities for work, the possibilities of using CCC, WPA, or "regular" labor must be determined.

In evolving the plan, great skill is required because a positive separation must be made between those measures having a direct and immediate benefit in the flood control program, and those possessing auxiliary benefits but not otherwise justified on the basis of flood control as such. Similarly also, a separation must be made in the application of these same measures as between those parts of the watershed where the measures are needed for flood control and those where they are needed because of other social or economic considerations. On some of the flood source areas, an immediate program will be indicated. On others, conditions may be such as to suggest that the program be deferred until the more critical situations have been met.

Under the procedure used by the War Department, plans for specific works of improvement are submitted to the Congress for consideration. These plans are reviewed in the House Committee on Flood Control. If the plans are accepted, Congress authorizes a specific project to be undertaken in accordance with the recommended plan

For its upstream control operations, the Department of Agriculture is now authorized to follow another procedure. Under the Whittington-Copeland Flood Control Act of June 28, 1938, Congress has authorized the Department of Agriculture to carry out measures on the watersheds of those streams for which projects of the War Department have already been authorized. Further, we can carry out our program for those watersheds on plans approved by the Secretary and not by Congress. Consequently, when the Detailed Survey reports have been approved, the Department can then take its next step - the actual flood control work.

Under his authority, Secretary Wallace has approved Detailed Surveys of twenty-six watersheds. Work on fourteen of these is now under way. They are located in New Hampshire, New York, Pennsylvania, Ohio, Georgia, Mississippi, Texas, Oklahoma, Missouri, Wisconsin, Colorado, Arizona, Idaho, and California. These watersheds were selected where flood problems are known to exist, where situations are critical, and where there is an opportunity to get under way promptly with an action program. These opportunities exist on public lands and on private lands where the local people have indicated a willingness to regulate themselves under what is known as a "conservation district act". Under these State acts, conservation districts are organized.

The Detailed Survey organization follows in general the pattern used in the preliminary examinations. Members of the three cooperating bureaus (Soil Conservation Service, Bureau of Agricultural Economics, and Forest Service) are assigned to a common headquarters in a watershed under the leadership of either the Forest Service or the Soil Conservation Service. Salaries are paid by the parent bureau, but expenses are met from funds set up in the organization having chairmanship. Each survey unit includes specialists in appropriate fields. Thus a party may include foresters, range men, geologists, soils specialists, agronomists, engineers, economists, etc.

(To be continued)

TROPICAL WOODS BULLETIN

Review by L. J. Markwardt, Forest Products Laboratory

Recently issued by the University of Michigan press is Bulletin No. 7, entitled "Mechanical Properties of Certain Tropical Woods, Chiefly from South America," by William Kynoch and Newell A. Norton. This bulletin is a contribution from the Michigan School of Forestry and Conservation, which has significantly found it possible to tackle a major problem in products and utilization. I would be remiss if I failed here and now to pass an orchid to Messrs. Kynoch and Norton, not only for the good start that has been made in supplying some authentic data on certain tropical woods, but also for their fortitude in undertaking a long-drawn-out task devoid of glamour. The project was undertaken in cooperation with the Tropical Plant Research Foundation and the Wood Industries Division of the American Society of Mechanical Engineers.

The bulletin presents data on the average strength and related properties of thirty-eight timber species, representing the better-known woods of the respective countries, and covering approximately thirty thousand individual tests. General information regarding the characteristics of each species is also given and is made more precise by the application of the standard terms for describing properties. For most species the test material was selected in the forest with the cooperation of the respective Government forest authorities, or other properly qualified agencies. In this way the troublesome question of identification was solved as far as limitations of present knowledge make it possible, and material of known origin was obtained. Furthermore, the testing methods employed were essentially similar to those used at the Forest Products Laboratory, so that the data, with certain limitations, may be compared with those now available on native species.

Unfortunately, because of the magnitude of the project, with literally thousands of tropical and South American species awaiting the appraisal of physical and mechanical properties, the authors found it necessary to limit their research on most species to samples from but one tree, except notably for the Brazilian species, where three trees are represented. The authors are fully conscious of this limitation, however, for they point out that "the study must be regarded as of preliminary character only," and that the purpose was not to establish final figures on any of the woods, but, "rather, to bring forward a moderate fund of data on a fairly large number of timbers." They express the caution that "the figures should not be used in comparing the woods tested with domestic timbers without bearing clearly in mind the limitations to their usefulness for this purpose which result from their preliminary character.....". The results are of value not only in affording an indication of properties of the species in question, but also as a guide for determining the most promising species for more complete study.

Mr. Dana points out in the Foreword that "tropical woods are bound to be of increasing importance to this country," and "that whether they are regarded as unwelcome competitors or as desirable supplements to our waning supply of certain species, accurate information on their properties is urgently needed." Tropical woods have also been considered an important item for reciprocal trade as a means of enhancing the good neighbor relationship with Latin America.

THE LAST OF HER RACE
(Ectopistes migratorius)

By John H. Hatton, Washington

The last passenger pigeon in this country, a female, died on September 1, 1914, in the Cincinnati Zoological Gardens, aged 29 years.

I have wanted to see this bird and, until I found it had been contributed to the National Museum, Washington, D. C., fully intended some time to stop over in Cincinnati and extend my humble homage to its memory. It is a serious thing to exterminate a species utterly! If you are in Washington some time, go to the National Museum at 10th and Constitution Avenue and look at a number of mounted specimens in their glass cases, as I did on July 19, 1938. I'm sure you will agree that there is a distinct element of sadness in contemplating the last of the race. They were beautiful birds, of a distinct type. I would describe the color as bluish gray, and there are a few black mottled feathers on the surface of the wings. The tail is elongated, tapering to a point, with two dark feathers in the center and five bluish ones, almost white in some males, on each side, making twelve feathers in the tail. There is a rich pinkish brown cast to the breast feathers in the male. The species is larger than our wild doves. The body is graceful and can be modernistically expressed by "streamlined." There can be no mistaking the type with the rounder-bodied birds with which we are familiar. Once seen, it can hardly be confused with other types, domestic or wild.

In 1857 a Select Committee of the Senate of Ohio made a report, on a bill proposing to protect the passenger pigeon, which reads as follows:

"The passenger pigeon needs no protection. Wonderfully prolific, having the vast forests of the North as its breeding grounds, travelling hundreds of miles in search of food, it is here today and elsewhere tomorrow and no ordinary destruction can lessen them or be missed from the myriads that are yearly produced."

The passenger pigeon, indigenous only to North America, literally swarmed this country in thousands of millions from the Rocky Mountains to the Atlantic and from the Gulf to Hudson Bay, often darkening the sun in its flights. In 1869 from the town of Hartford, Michigan, three carloads of dead pigeons were shipped to market each day for 40 days, a total of 11,880,000 birds. It is recorded that another Michigan town marketed 15,840 in two years. They had a market quotation of four cents a piece.

– And not one left alive, even as a Zoological specimen.

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THE EDITOR DISCOVERS

Hearings before the Bureau of the Budget on the Department's estimates for the Fiscal Year 1940 will begin on September 19. This is two weeks to a month earlier than the time Budget Hearings are usually held. Forest Service appearances before the Budget Bureau occur about a week after the Department hearings begin, making September 26 the probable date of the Forest Service appearance. It also seems very possible that the Hearings before the House Committee will start earlier than usual this year -- possibly before the convening of Congress.

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The Forest Service, on August 20, furnished the Secretary's Office with a report of its recommendations for research, development, procurement, experimentation and operation for service testing of rotating-wing aircraft, authorized by Act of Congress last session (Public 787). This report was in response to letter of July 28 from the Acting Secretary of War to the Secretary of Agriculture.

The report points out that the Forest Service is interested in the development of low speed or hovering type of aircraft primarily for use in forest fire control, although there are other probable uses. The report requests a total of 8 machines, or 4 each of the following types, to be used as specified:

For observation work including scouting at large fires and certain forms of detection from the air, it is stated that the present light weight open cockpit type is acceptable.

For transportation of men and supplies to fires and for direct attack from the air a larger newly developed type with high payload is required.

Funds to be provided for these purposes include costs of operation and personnel.

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K. D. Flock of Region 1 and Gordon D. Fox of Region 9 have been selected from the 40 or more nominees submitted by the Regions to fill the two Washington Office training positions in Operation and Personnel Management. Beginning September 1 and continuing each year thereafter, two field employees will be transferred to Washington for a year's training in administration and, at the same time, to secure a Master's degree in Public Administration. Messrs. Flock and Fox will attend American University.

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In response to a request from the Secretary of Agriculture, the Post Office Department has agreed to republish in the Postal Bulletin and in the September Supplement to the Official Postal Guide a notice requiring carriers for rural and star routes to report to designated Federal and State authorities any forest fires which they may discover. Such cooperation was originally furnished by the Post Office Department in 1912 and instructions to rural and star-route carriers have been published in the Supplement to the Official Postal Guide from time to time since that date, the last notice appearing in 1931.

The cooperation resulting from these instructions has been of some help in forest fire control, but it is felt that much depends upon the interest and initiative of individual Forest Officers in contacting the carriers in their territory, selling the idea to them, and following the matter up from time to time. If the initiative is left to the carriers, they can scarcely be expected to take the same interest as though they know Forest Officers are depending upon them for such cooperation.

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Net receipts from the National Forests for the Fiscal year ending June 30, 1938, totaled $4,608,853, or a decrease of $327,329 from the previous fiscal year. Greatest sources of revenues were timber sales - $2,435,988; grazing fees - $1,636,685; and special use permits - $364,350. By Regions the total net receipts were as follows:

R-1 - $413,676, or a decrease of $34,666 as compared to previous F. Y.
R-2 - 805,020, or an increase of $12,907 " " " " "
R-3 - 541,055, " " " " $80,420 " " " " "
R-4 - 574,315, or a decrease of $7,069 " " " " "
R-5 - 622,737, " " " " $99,472 as compared to previous F. Y.
R-6 - 896,103, " " " " $251,164 " " " " "
R-7 - 111,703 or an increase of $8,942 " " " " "
R-8 - 461,307, or a decrease of $74,790 " " " " "
R-9 - 121,049, or an increase of $35,970 " " " " "
R-10- 61,888, " " " " $1,594 " " " " "

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Legislation by the General Assembly of the State of Virginia in 1938 changed the name of the State Commission on Conservation and Development to the Virginia Conservation Commission.

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State Forester Raymond W. McLees of North Dakota recently passed away and has been succeeded by Albert F. Arnason.

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SERVICE BULLETIN

CONTENTS CONFIDENTIAL

> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES. IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT xxx THE TIME HAS COME FOR A CHANGE. AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY xxxx TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES, WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER.
>
> Theodore Roosevelt

VOL. XXII No. 19 Washington, D. C. September 19, 1938

FOREST PRIMEVAL

(The following review of "German Forestry", by Franz Heske, was published in "The New Republic" for August 17, 1938)

The only justification for reviewing this book for lay readers is its too obvious attempt to indoctrinate the conservation movement in this country with Nazi ideology. It also reveals how this philosophy works out in actual practice in such a field as forestry.

The idea of the book originated with one of the selected groups of American lumbermen and foresters who for the last four or five years have been visiting Germany and Austria as "fellows" of the Oberlaender Trust. Dr. Heske, a professor at the forest school at Tharandt, who acted on most of these visits as director, guide and "interpreter," has undertaken to interpret German forest policies for the people "in the United States and other countries which are in the early stages of forest conservation." This interpretation, originally written in German, has been translated into English by Professor A. B. Recknagel of Cornell University, edited by W. N. Sparhawk of the United States Forest Service, prefaced by Henry S. Graves, dean of the Yale School of Forestry, and supplied with an introduction by R. B. Goodman, a forest-land owner.

The statistical and technical discussion of German forests is not new, except for the stock argument advanced by all German expansionists as to Germany's need for greater natural resources. It is the discussion of forest policies which holds the greatest interest.

Dr. Heske is an ardent defender of private ownership of forests, particularly "entailed" forests -- in other words, the large manorial estates which Republican Germany tried vainly to break up. Such ownership, together with the rigid fixity of occupation, fixity of residence and fixity of remuneration of rural workers, marks practically a return to the feudal system. In the place of trade unions, collective bargaining, etc., Dr. Heske extols the abstract concept of "individual enterprise as a social organism" and the principle of leadership. He frankly admits that the principle of leadership means that "all power to make decisions resides in the leader of the enterprise -- the employer."

How well the "leader principle" has worked out may be gained from the fact that in the woods industry, for instance, the average hourly rate of wages for skilled labor, male and female, has dropped from 111.2 Reichspfennigs in 1931 to 79.3 Reichspfennigs in 1936. For unskilled labor, it has been reduced from 91.3 Reichspfennigs in 1931 to 62 Reichspfennigs in 1936. (These figures are quoted from the National Industrial Conference Board's report, "Economic Development of Germany under National Socialism," study No. 236, pages 33-60.)

Dr. Heske's paradise is thus nothing more than feudal serfdom. It is, therefore, somewhat understandable why American forest-owners would be interested in having this interpretation of German forest conditions made available to American foresters. Why foresters, however -- some of them high in the public service -- should be active participants in putting over this new ideology, is much more difficult to understand or to explain.

-Raphael Zon

EXCERPTS FROM SECRETARY WALLACE'S ARTICLE "OUR LAND-USE PROGRAMS INTERMESH" IN "SOIL CONSERVATION" FOR JULY 1938

"In the field of agricultural land-use programs Congress in the last 5 years has charged the United States Department of Agriculture with many new functions. These include programs for crop adjustment; crop insurance; soil conservation; marketing agreements; tenancy reform; the rehabilitation of the disadvantaged in agriculture; the purchase and development of submarginal lands; research, demonstrations, and actual erosion control under the Soil Conservation Act of 1935; land treatment for flood control; farm forestry; the improved utilization of water facilities; and increased forestry and wildlife activities. This is only a partial list. It sufficiently indicates, however, that the Department has become virtually a new institution with a very great responsibility for vast action programs." ***

"Among the Department's more important objectives are: (1) Stability of farm prices, farm income, and rural-urban relationships; (2) the conservation of soil, water, forests, grass, and wildlife; (3) security of tenure for farmers, with an increase in the percentage of owner farmers and better conditions for tenants; (4) higher standards of rural living and stability of rural communities through integrated crop adjustment and better land use. Needless to say, these objectives do not occupy watertight compartments. They are interdependent. Progress toward one type of objective requires equal and simultaneous progress toward the other ends."***

"In the land-use programs perhaps more than in any other branch of the Department's work the need for action lifts the specialist out of his specialty and involves him in teamwork. It obliges him to see the whole as well as the part. Our land policy draws upon the economic and social sciences as well as upon agronomy, soil science, and land engineering. In other words, it affects the land user as well as the use of land. Specialists must look beyond their fences; they must broaden the concept of their responsibility. Otherwise, they will find it impossible to integrate the different sciences properly in the action programs, and results will be small for the effort expended.

"The need for taking a broad view of the land question does not shove the specialist into a back seat or in any way depreciate the value of his special knowledge. Indeed, it puts a premium on research even of the very highly specialized type. But here is a relatively new thing in the application of agricultural research. Formerly, with the discovery of a useful fact or principle, the responsibility of the research worker tapered off. He could present his results to the farmer with a take-it-or-leave-it gesture. Research was mainly individualistic and so was the application. It is different now that public agencies have great responsibilities for action. It is necessary for research agencies not only to discover what should be done but to cooperate with farmers and with other groups in putting the discoveries into practice."***

"But the agricultural land-use programs must look beyond agriculture. They must consider all land uses; those that employ the city workers directly and indirectly as well as those that employ the people on the farms. Agricultural land policy cannot be bounded by the farms, ranches, and forests, or even by the rural population; it should formulate alternative programs, one for the possibility that industrial revival will shortly restore the movement of population away from the farms and toward the cities, and another for the possibility that it will not. In the first case, land not suited to farming can be shifted readily, as funds and other facilities permit, to forest, recreation, and wildlife purposes. In the second case, the shifting will meet with considerable resistance, and will need to be coupled with relocation programs and with special programs for relatively noncommercial agriculture. Agriculture is not in a position to solve industry's problem; but it cannot deal with the farm land problem without reference to urban conditions."

FOREST LAND PURCHASES, A NEW DEAL PROGRESS REPORT

By E. A. Sherman

The status of land acquisition work at the close of business June 30, 1938, gives the Forest Service an excellent opportunity to size up the effectiveness of the procedure inaugurated under the "new deal" in forest land purchasing.

On March 1, 1937, there was a total of 6,682 Weeks Law land purchase cases which had been approved by the National Forest Reservation Commission and accepted by the Secretary but not yet paid for, 803 in Region 7, 1,919 in Region 8, and 3,960 in Region 9. Between that date and July 1, 1938, additional cases were approved and accepted, aggregating 232 cases in Region 7, 840 in Region 8, and 849 in Region 9, bringing the total up to 8,603 cases. In the meantime the new procedure in land acquisition had been partly in effect beginning February 1937, and fully in effect from July 1, 1937. Between March 1, 1937, and July 1, 1938, out of this total of 8,603 cases a total of 6,194 cases was paid for, leaving a total of 2,409 awaiting settlement.

Since there has been no meeting of the National Forest Reservation Commission since July 1, 1938, and will not be until after Congress convenes, this total of 2,409 of approved cases is the sum total of approved land purchase contracts awaiting action from all outstanding contracts. During the fiscal year ending June 30, 1938, the acreage of land finally paid for and vested in the United States totaled 1,433,314 acres, and payments for land totaled $5,603,186 which is more than 2½ times the amount which will be available to pay for land out of the $3,000,000 appropriated for the current fiscal year.

During the past year ending June 30, 1938, precedence was given to consummating old cases rather than new ones. It is interesting to note that 321 of the cases awaiting action July 1, 1938, were in Region 7, 799 in 8, and 1,289 in 9. If the three Regions each averages the same number of cases monthly in the near future as they averaged from March 1, 1937, to July 1, 1938, Region 7 should have every case now pending paid for before February 28, 1939, Region 8 before January 31, 1939, and Region 9 before December 31, 1938.

As a matter of fact, no such happy consummation can be expected, for the reason that a considerable number of the 2,409 cases awaiting payment last June 30 were condemnation cases for which it is impossible to predict when payment will be made. However, the Department of Justice has recently shown an active and sympathetic interest in expediting action on our condemnation cases. It is confidently hoped that during the next few months remedial steps will be taken which will result in speeding up action on condemnation cases.

It should be understood that the above statement is based entirely upon actual payment for cases, since receipt of the purchase price is what the vendor expects, and that this involves activities for which the Forest Service, the Solicitor's office, and the Department of Justice are jointly responsible and consequently entitled to joint credit.

The abstracting and curative work for which the Forest Service is alone responsible is more nearly up to date. There is always a lag between abstracting and the payment and closing of a land purchase case. Obviously neither the Solicitor's office can approve a title nor can the title be certified by the Attorney General until the abstracting work has been completed by the Forest Service and it has also supplied any curative material required by the Solicitor and Justice. As of June 30, 1938, the regional reports show a total of 1,328 cases in the hands of the Forest Service for the compilation of abstracts or the procurement of curative material. In Region 7, 189 cases were being abstracted and 51 cases awaited curative material; in Region 8 abstracts were incomplete for 285 cases, and curative material required for 194 cases. Region 9, that started with far the largest number of cases, made the best abstracting record, only 178 cases remaining unabstracted, but 411 cases awaited curative material.

Thus far the story is as told by the official records up to June 30, 1938. But the record may be further clarified by some other very interesting and significant comments. Specifically, on most of the 1,328 cases which were incomplete June 30, considerable work had already been done, the work on such cases being in all stages of progress. In addition, here and there in some purchase units and Forests abstracting had been finished on all approved and accepted options and was well under way on advance cases which have not yet been submitted to the Commission for approval. The August report for Region 9, incidentally, shows 82 abstracts finished as of July 31 and only 96 left to finish. On some Forests in that Region as many as 100 advance abstracts have already been completed and the Region is laying plans to come to the next meeting of the Commission the first of the year with a full program for the balance of the fiscal year already completely abstracted and ready to refer to the Solicitor's office for examination and reference to Justice.

Back of the scenes there seems to be a steadily growing appreciation of the entire problem by the entire personnel, administrative, clerical and legal, both in Agriculture and Justice. Decidedly encouraging progress is resulting. As to costs, much still remains to be accomplished.

FOREST FIRE PUBLICITY

By H. B. Shepard, Northeastern Forest Experiment Station

The June 25th issue of "Collier's" carried an article by Corey Ford and Alastair MacBain, under the title "Hell and High Timber". The Forest Service and a number of its members were given full credit for source material.

This is a highly dramatized treatise on forest fires, of considerable literary merit with its popular readability materially enhanced by the inclusion of some anecdoted material of a rather typical "tall story" character. Whether such material serves to amuse the initiated or to amaze the uninitiated makes little difference and no harm is done in any event.

Some of the material quoted, however, is so questionable as to statistical accuracy, so unfair to many conscientious and effective workers in forest fire protection outside the Forest Service, and so misleading as to what forest fires are doing in the country, that it cannot properly be left unchallenged.

In the third column on page 13, the authors say:

"This year, for example (man). . . . . will cause over 150,000 forest fires in the United States. These fires will devastate more than forty million acres of privately owned timber lands as well as another half million acres in our more closely guarded national forests".

Disregarding "over" and "more than", our 614,558,000 acres (Copeland Report) of forest land will last, at this rate, just 15 years and 2 months, even if we do not cut another stick.

The authors go on to say that "this year, thanks to . . . . . carelessness . . . . . - this country will lose fifty million dollars in timber alone" and "if (the) average holds - something like fifteen billion board feet of timber will be destroyed . . . . ."

Fifteen billion, valued at fifty million dollars figures out at $3.33 ⅓ per thousand, which is probably fair enough but where do the figures come from? The Copeland Report gives an estimate for annual fire loss on commercial areas, in the whole country, of one and four tenths billion feet and seven million cords of cordwood. If, for convenience, the seven million cords are converted to board measure at two cords per thousand, they come to three and one half billion feet, making a loss of four and nine tenths billion feet altogether. If it is granted that the average value is $3.33 ⅓ the annual loss on this basis is $16,333,333.

Since the country's stand of commercial saw timber, as given in the Copeland Report, is 1,667,803,000,000 feet and the stand of cordwood is 2,382,097,000 cords, the value, using the above method of computation, is approximately five and one half billion dollars, which seems fair enough for timber and cordwood on the stump.

According to the Copeland Report, then, the average annual fire loss, on a dollar value basis, is slightly under three tenths of one percent for the country at large.

Careful field analyses of a great number of burned areas indicate plainly that the figures on which the Copeland Report data are based are exaggerated, probably by as much as twenty five or thirty percent. The actual annual fire loss of merchantable growth probably does not greatly exceed two tenths of one percent countrywide, or somewhat over eleven million dollars.

Nothing is said in the article about the fine showings that some of the States are making in their organized protection of privately-owned forest lands, keeping annual losses over long periods of years down close to or under one tenth of one percent. What the authors do say is, "Our national forest area covers well over two hundred million acres . . . . . .; yet the total fire loss in all this vast territory last year was only 105,155 acres. Compare this with the annual loss of forty million acres in our unprotected timberlands, outside the control of the Forest Service. . . . ."

Obviously we are not losing forty million acres of "high - timber" per year, nor is any such area being annually "devastated". Possibly, though I doubt that it could be scientifically proven, that much "forest land" is being burned over. After we deduct the acreage burned on land previously devastated by fire, cutting, or some other agency, and the great area which burns in the South each year without even coming close to causing a total loss of the growth, the annual loss of forest growth on the area remaining is a very much smaller figure than that implied in the article.

The actual loss is still greater than it should be and there is need for more effective protection and public education in most of the country, as is amply proved by what has happened on the Pacific Coast this summer, but I wonder if there is real need for such carelessness in the use of figures as is embodied in this article. I can think of several ways in which such implications do positive damage to the cause of forestry.

It is safe to assume that "devastation" can occur only where there is something to "devastate" and that the term is not descriptive of the effect of fire on previously denuded areas. It is nevertheless highly desirable that fires on denuded and waste areas be stopped so that the forest can be rehabilitated, and it is doubtless true that a certain amount of dramatization and, perhaps, exaggeration is necessary in order that the general public may be sufficiently impressed. Is it not possible, however, for us in the Forest Service to see to it that the material furnished to writers is sufficiently accurate and free from possibility of distortion as to insure the avoidance of erroneous and harmful impressions in the minds of critical readers?

For my conclusion, let me quote and comment on the concluding paragraph in the article by Messrs. Ford and MacBain which, following a description of a freshly burned area, reads thus:

"Throw that cigarette anywhere you want. It doesn't matter where you flip it now. There isn't anything left out here to burn. There won't be for another hundred years . . . . ."

I wonder if the authors have ever seen an area that was burned hard about five years previously now full of dry grass and debris, herbaceous growth, brush, and perhaps some small reproduction. If they have, they ought to know that there will be, in a whole lot less than one hundred years, plenty to burn and to burn very fiercely, not only resisting control but constituting a serious threat to the surrounding timber that escaped the first fire.

I believe it is possible to be more careful with figures and still get the story across. Can we not achieve the objectives of public education without resorting to a type of publicity that may kick back on us in surprising and distressing ways?

CORRECTION

In Mr. Hatton's article "The Last of Her Race" in the September 5 issue of the Bulletin a typographical error was made in line 10, top of page 6. The number of birds marketed by a Michigan town in two years should have been 15,840,000 instead of 15,840.

THE EDITOR DISCOVERS

According to a press release issued by the Director's office, a recent survey showed that 2,391 of the 18,201 Reserve Officers, project superintendents, foremen, technical personnel, skilled workmen and educational advisers assigned to the 1500 CCC camps now in operation had formerly served in the Corps as enrollees. Salaries paid former enrollees range from $780 to $2600 or more a year in some instances.

More enrollees won promotion to positions on the camp supervisory staffs than to any other of the nonenrolled positions held by former enrollees. The survey showed that 1,377 former enrollees had been promoted to positions as project superintendents, foremen and technical assistants on the camp supervisory staffs; that 120 were serving as Reserve Officers; that 812 were now included among the facilitating personnel and skilled workmen of the technical staff; and that 82 had been promoted from enrollee status to educational advisers.

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The Secretary of Agriculture had recently asked the Comptroller General for a decision as to whether payment may be made from the appropriation for fighting forest fires for employment of physicians, either on a fee or part-time basis, to examine applicants for fire fighting work prior to acceptance of their services, as a means of avoiding employment of any having diseases that may spread to other personnel in a camp. The Comptroller's decision A-97344, dated August 26, is that that office will not object to the procurement of medical services for this purpose either on a fee or part-time basis.

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President Roosevelt has proclaimed October 11, 1938, as General Pulaski Memorial Day. He has directed that the flag be displayed upon all Government Buildings on that day as a mark of respect to the memory of General Casimir Pulaski, "a valiant son of Poland, in the ranks of those whose deeds are part of the imperishable record of American independence," and has invited the people of the United States to participate with appropriate ceremonies in schools, churches, or other suitable places in solemn commemoration of General Pulaski's death on October 11, one hundred and fifty-nine years ago.

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Under the sponsorship of the American Forestry Association a plan is being developed to raise funds to endow a national fire medal, which it is proposed to award for outstanding individual bravery or heroism on the fire line. Any individual or public officer may be eligible for the award after unquestionable evidence is presented that he has performed an act worthy of consideration for such an award. The medal may be awarded posthumously. It will be the first award of its kind to be established.

The award movement came as an outgrowth of the Blackwater fire tragedy on the Shoshone Forest in August 1937. The award committee will be selected by the American Forestry Association, Society of American Foresters, Pack Forestry Foundation, Association of State Foresters, and The National Lumber Manufacturers Association. The American Forestry Association will handle all matters pertaining to the award.

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"Southern Forestry" by Charles N. Elliott, Director of State Parks in Georgia's Department of Natural Resources, and M. D. Mobley, Director of Vocational Education in Georgia, just off the press, is an unusually complete and authentic textbook of practical forestry. It was prepared as a result of a number of years of actual teaching of forestry in vocational agriculture on the part of the authors. The Regional Forester's office at Atlanta cooperated with the authors in the preparation of the text. The introduction, "The Importance of Our Southern Forests," is by Regional Forester Kircher. The book is profusely illustrated, many of the photographs having been furnished to the authors by the Washington and Atlanta offices.

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The Acting Chief recently approved an exchange on the Pike National Forest whereby the United States will receive 160 acres of timber land valued at $377.60 for 106⅔ tons of pine tree boughs which will be left on the ground following a pruning operation. "It appears," says Land Acquisition, "that the Pike has been alert to the opportunities of disposing of material generally considered worthless and to the opportunities to consolidate the lands of the United States."

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According to a recent R-2 press release, notification has been received from the Assistant Commissioner of the General Land Office of the acceptance of title to 70,826 acres offered by the State of Colorado in exchange for the 70,881 acres of National Forest lands in the North Park region of the Routt National Forest, which was selected by the State Board of Land Commissioners as the ideal site for Colorado's first State Forest. Consummation of the exchange marks the culmination of over ten years of detailed study and cooperative effort between the Colorado Board of Land Commissioners and the Forest Service to enable the State to collect its widely separated land holdings within the National Forests in one locality and more effectively plan for their use.

Preparatory to effecting the exchange, State legislation was enacted in 1931 which provided for the establishment of the Colorado State Forest. It was determined that the ideal location for this project was in the North Park region, not only because the State already owned 15,000 acres of land within and adjacent to the area, but because of its nearness to Colorado State College of Agriculture and Mechanic Arts, which made it easily accessible as a training ground for forestry students at the college.

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The 1938 Yearbook of the Department of Agriculture - "Soils and Men" is off the press. It is dedicated to the memory of Curtis Fletcher Marbut, for many years chief of the Soil Survey Division of the Department. The 1939 Yearbook, already underway, will discuss human and animal nutrition.

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The Southwestern Forest and Range Experiment Station has moved to the Amos Apartments on 701 East Third Street, Tucson. The Research unit was forced to move from the third floor of the college of agriculture at the University of Arizona due to lack of campus office and classroom space.

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SERVICE BULLETIN

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>
> Theodore Roosevelt

Vol. XXII No. 20 Washington, D. C. October 3, 1938

LAND USE PROGRAMS OF THE DEPARTMENT OF AGRICULTURE

(Excerpts from articles in the July and August issues of "Soil Conservation")

By Under Secretary M. L. Wilson, in August Issue

"If public programs for agricultural adjustment and land use are to be permanent features of our agricultural economy, as I think they will be, it is important that farmer leaders in the counties, in the States, and in the Nation, play a dominant role not only in determining the broad outlines of such programs, but also in adapting them to the exceedingly complex variations in local conditions.

"The most impelling reasons for active farmer participation in public agricultural planning are, first, to ensure practicability in the goals and procedures established and, second, to obtain general acceptance by farmers of the plans developed."***

"It was in recognition of the need for working out agreement between local, State, and National leaders that county agricultural planning and group discussion has been sponsored by the Department of Agriculture. Some 2,400 counties now have agricultural planning committees, each consisting of 10 to 20 farm men and women who are engaged in determining desirable changes in land use and farm practice."***

"Differences between expert and farmer opinion as to needed agricultural adjustments are generally due to differences in available information upon which the opinions are based, but this does not necessarily mean that the farmer has less information. It may mean only that each has different kinds of information, all of which are needed in formulating an adequate program. The expert is often a specialist with vision for only one aspect of a problem. Though the farmer may not see that particular aspect so clearly, he is just as likely to see other pertinent phases of his problem that the specialist overlooks. Beyond this is the fact that policy judgments might differ for reasons no more tangible than differences in social philosophy.

"Thus I conclude that no group of people is more suited to synthesize the judgments of specialists and to forge them into workable programs than responsible farm leaders who know farming as only experienced farmers can know it. This is only another way of describing the democratic principle which requires experts and specialists to function as advisers to representative laymen. Democracy is not government by experts. The best democracy is government with the aid of experts. It is upon this philosophy that the present Department of Agriculture is attempting to build agricultural planning. Because of this philosophy, the Department holds that a program which moves in the right direction, though not quite representing perfection in the eyes of the expert, is preferable to no program at all. This approach is pragmatic and is based on the conviction that planning in a vacuum will be no more effective in improving farm life than 'equilibrium economists' have been helpful in social reform. Its premise is that economics is a social process; not an 'equilibrium of forces.'

"To avoid 'planning in a vacuum,' and thereby to sustain farmer interest in participation in planning, the Department now proposes that in each State and in each county the official representatives of each State and Federal agency having responsibility for land-use programs, meet with the farmer planning committees in an effort to relate planning to administration. It is not reasonable to suppose that farmers will continue to render volunteer service in public planning if there is no evidence that their efforts are being translated into action. Nor will they function effectively if Federal and State officials attempt to dominate or to operate other than as consultants and advisers."***

"Planning by farmers for public programs involves both an ideal and a reality. Progress thus far represents merely a beginning, but only a short period of time has elapsed since the need for it became apparent. The ideal will be approached as the enormous latent forces are marshaled and coordinated for its achievement. It is perfectly clear that American agriculture, which includes the United States Department of Agriculture and the land-grant colleges, is rapidly shifting its internal relationships, in response to world-wide and domestic forces, so as to meet the necessity of public action and at the same time create a form of economic democracy unknown anywhere else in the world. The essence of this shift is American, and it represents progress in our own way. Farmers not only continue to plan their own individual farm operations, but farmer leaders in every community are playing an ever-expanding role in planning public programs."

By F. A. Silcox, in July Issue

"The nature and distribution of the National Forests brings them into a certain coincidence with the majority of the farming regions which are preponderantly submarginal, but from which flows the youth that makes up the deficiencies of urban populations. Within or adjacent to the National Forests are several hundred thousand families whose economic destinies are linked with the depleted soils and resources resulting from decades of natural resource exploitation. These people cannot be transplanted to other locations; their economic salvation lies in their rehabilitation in their present locations. Part of the program of rehabilitation is economic; it involves the restoration of industries through replacement of natural resources, the development of credit facilities, and the organization of marketing arrangements. Part is the rehabilitation of the home - a sanitary rather than a polluted water supply, a tight roof rather than a leaky one, firm foundations instead of rotting sills. Part is a matter of education through Extension Service leadership.

"In these circumstances, National-Forest management is not a relatively restricted function of natural resource production and utilization, but rather a widely ramified process of economic and social planning in which the human factors largely are dominant. Management as a foundation for acceptable ways of life for dependent people, in fact as means of life, is the paramount objective of National-Forest administration. Early recognition of this ideal inspired the first notable example of large-scale planning of nonurban land uses. Only by careful planning and correlation could the protection of the forests, the structure of physical improvements essential to their effective use, the adjustment of competitive economic demands for the industrial use of their material resources, the provision for wildlife, the safeguarding of esthetic, inspirational and scenic qualities, all be harmonized into mutually compatible patterns. Thus it happened that, of sheer necessity, the Forest Service was the first of the Federal agencies to give widespread application to principles of planned land use. Such planning is never static; it is a continuing process requiring constant readjustment."***

"The Forest Service, as the acknowledged Federal leader in continuously productive use of forest land, has established working relations with forest producing agencies, and has carried on the work of developing a unified approach to the solution of the problem. Critical cases have been analyzed, recommendations made to interested public agencies, landowners and industries, and steps taken to secure remedial action. Working in harmony with cooperating governmental agencies, State forestry agencies, and representatives of the wood-producing and wood-using industries, plans have been laid, and in some cases placed in operation, to secure and study the data essential to presentation of the full-vision picture of forest-land use, for the various economic operating areas and for certain States as a whole. Preliminary records indicate that some 37 million acres of industrially owned forest lands are now under some form of forest management, of which from one-fifth to one-fourth may be considered under sustained yield."

STATE FORESTERS' MEETING

By A. B. Hastings, Washington

The nineteenth annual meeting of the National Association of State Foresters was held in Idaho from August 29 to September 2, starting with a banquet given by the Boise Payette Lumber Company, S. G. Moon, manager, in the Owyhee Hotel at Boise.

The meeting was well attended with the State Foresters of twenty-seven States there in person and at least five other States represented officially by a member of the State Forester's staff or a member of the State forestry board. The number registered at Boise for the meetings was 117, most of whom took in the field trips.

U. S. Forest Service Regions 1, 2, 4, and 6 were represented by the Regional Foresters and several of their staff, particularly from the State and Private work.

August 29 and 30 were devoted to the formal program, including executive sessions of the Association and committee meetings. The Association was addressed by Messrs. Silcox and Tinker on the subject, "Cooperative Forestry and Forest Protection". Addresses on the same subject were given by Mr. Martin, forest engineer of the Western Pine Association, and by State Foresters Goodyear and Ferguson of Washington and Oregon, respectively, with discussions by the members. On August 31 the group was taken to McCall, the Southern Idaho Timber Protective Association acting as hosts at a luncheon given on the way at Smiths Ferry, headquarters of the South Idaho Timber Protective Association. The spick and span Packer John Association lookout was inspected before lunch. On September 1 the journey was made from

McCall to Sun Valley through the Payette National Forest by way of Warm Lake Summit, Landmark Ranger Station, Deadwood Summit, Deer Creek Pass, Stanley, and Red Fish Lake, where lunch was served to the party as guests of the Sawtooth National Forest. This trip gave the opportunity to see the Sawtooth Mountains in all their picturesque grandeur.

The program on Friday, September 2, consisted of an informal hearing for the Joint Congressional Committee, Senator Pope acting as chairman with Congressman Doxey the only other member of the committee present. Senator Pope, if I understood him correctly, explained that this was not a meeting of the Joint Committee, but that the statements made would be available to the committee. After very brief statements by Senator Pope, Congressman Doxey, and the Chief Forester, papers were read for the major regions of the United States by the following: State Forester Goodyear for the Pacific Northwest; State Forester Marcus Schaaf for the Central States group, State Forester Howard for the Northeast, Acting State Forester Emerick for the Middle Atlantic States, and State Forester Heyward for the South. These statements, prepared with great care and pretty effectively representing the views of the individual State representatives, gave rise to pointed questions and answers developing a remarkably complete and effective resume of the forestry situation as relating to State and private land. Senator Pope and Congressman Doxey showed by their comments and questions a genuine appreciation of forestry needs and keen interest in programs to meet these needs.

With the single exception of regulation, it appears that there was very satisfactory unanimity of opinion by Forest Service officers and the Association of State Foresters. On this question of regulation the State Foresters were inclined to await further developments of forest management by private operators on a voluntary basis, prior to initiation of regulatory measures by the Federal Government or the States which may later be needed.

Forest fire cooperation on a 50 Federal to 50 State and Private basis with increase in the Clarke-McNary Law authorization to 9 million dollars and immediate appropriation of $6,500,000 was urged upon the Committee. The need for this was carefully argued, especially by Mr. Heyward for the South. He showed the Committee the substantial progress made to date, and vigorously urged adequate State and Federal programs for the future. In Mr. Heyward's analysis of the situation, he used the latest U. S. Forest Service Survey determinations of drain and growth for the South, with indications of a balance in favor of growth over drain for all classes of material and a deficit for sawlogs. He brought out strikingly the need for forest management of a conscious and progressive type, emphasizing the educational and cooperative approach to the land owner and operator.

The States' case included pleas that the Fulmer Act and the Farm Forestry Act be implemented with funds at the earliest opportunity.

I believe it was the general consensus of opinion by Federal as well as State men that the subject of State and private forestry had been exceptionally well handled by the State Foresters and presented a program which could be backed by all foresters in nearly every major part.

After the State Foresters' case was presented, the industrial and other groups were heard, but the writer had already left for Washington.

The following were elected as officers of the Association for next year: Rutledge Parker, Montana, President; James O. Hazard, Tennessee, Vice President; O. A. Alderman, Ohio, Secretary and Treasurer; and F. C. Pederson, Virginia, and Frank D. Heyward, Georgia, as members of the Executive Committee in addition to the three officers already named.

THE OCHOCO PURCHASE

By Frank B. Folsom, Ochoco

Picture a heavily mortgaged timber property of 80,000 acres supporting a stand of one billion feet of ponderosa pine; although cutting operations have never been started, the original stand has already been reduced some 20 percent by bark beetles. The carrying charges of interest and taxes are long overdue and press heavily for liquidation of the timber. Imagine the condition of the tract following a clear cut, and contrast that with the result that could be obtained under selective cutting if the financial burden did not force complete liquidation. Compare a growth of 90 BF per acre per year possible under a light selection with a growth of 20 or 30 BF per acre per year under a system removing all the values.

Picture a town of 1,200 people, which has built at its own expense a branch line railroad to the main line some 16 or 17 miles distant. In or tributary to this village is to be built the conversion plant for the liquidation of the timber tract. The removal of the stand will take about 20 years, calling for an annual cut of 50 million per year, and a sawmill and other investment costing from 300 to 500 thousand dollars. Such a plant would employ about 500 men in the woods and mill, and would give support to 1,500 or 2,000 people, thus doubling the population of the town and the related vicinity. At the end of 20 years the operation would be reduced to a cut of 20 to 25 million, and the employment to about half its peak level.

Picture 80,000 acres of forest land cut clean and an irrigation reservoir just below, a reservoir vital to the continued productivity of 11,000 acres of cultivated land in the valley surrounding the village. With the lands cut clean they would be sold or leased to stockmen. Uncontrolled grazing could logically lead to over use of the native forage and erosion, with the consequent silting of the reservoir, and partial destruction of the agricultural values. A steady run of water into the reservoir is in itself dependent upon the maintenance of a permanent cover on these headwater lands.

This community, with the knowledge that the economic activity in logging and lumbering would be greatly reduced in the future, would not be apt to provide the schools, parks, sanitation, and medical facilities, which could be prudently provided if a perpetual life could be reasonably predicted for the industry on the basis of the raw material under sustained yield management. Homes would not be substantial, streets, sewers, water system, and all public buildings would not be built for permanence but only for a relatively short life. The wealth represented by the timber resource would not in the main reappear in the property of the community, but would tend to be spent in other central communities with no benefit to Prineville, as is natural with the lumberjack not assured of stable employment.

This was the situation confronting the Forest Service a few years ago. The tract: the Ochoco Timber Company's holdings adjoining the Ochoco National Forest on the south and west; the Community: Prineville, Oregon.

How could this unpleasant prospect be avoided? The entire property might have been acquired by the Forest Service and the timber disposed of under sound management, but that was beyond the present resources of the Service by means of either exchange or purchase. The owners might have been induced to enter upon a long term plan of cutting on their own lands which, in cooperation with the National Forest lands, would lead to sustained yield.

But their weak financial condition made it imperative that they immediately realize as much as possible from the property. Planning for sustained yield would mean a withdrawal of part of the timber capital in the form of volume reserved following selective cutting. This reserved capital could not be realized on unless it could be sold to the Forest Service or exchanged to the Forest Service for other stumpage, and the funds for such transactions are limited.

The Forest Service was determined to find out if there was not some basis by which the lands might be kept in a productive condition and the evils of "boom and bust" avoided. The owner was also willing to work with the Service to the extent of his abilities. Over a period of about three years various plans were worked out and discussed with the owner and finally the purchase of some 262 million feet of pine and 20,985 acres of land, a block almost a township in size, was approved by the National Forest Reservation Commission at its meeting on December 16, 1937. This was only about one quarter of the property, but as an added consideration for the value received the owner has agreed to cut the timber on his remaining lands under a selective system subject to supervision by the Forest Service. This requires the company to reserve a stand of twenty percent of the volume of merchantable ponderosa pine. The owner agrees to limit the cut from his own lands to 75 percent of the estimated sustained yield capacity of the working circle but to not less than 30 million feet annually. He agrees to protect this land from fire, and to retain ownership of it until such time as he can enter into negotiations whereby, following logging, these lands may be exchanged to the Forest Service for cutting rights. This exchange procedure combined with the initial purchase will enable the United States to acquire, in a series of transactions, a forest property with a satisfactory growing stock which was too large to handle in one transaction.

The prospect of sound forest economy for Prineville now is assured. The level of production, 40 million BF per year, will be nearly the same as would have been initiated under a "boom and bust" program and will be capable of indefinite continuation. The money expended in the original purchase will have accomplished four times the results which could have been expected from it in an ordinary transaction.

Are there other forest properties where the public can get a dollar's worth of benefits for twenty five cents?

KEMPAKS TESTED ON THE MANISTEE

According to Supervisor White of the Manistee the two chemical foam backpack pumps known as the KEMPAK which have been tried out on the Manistee this summer apparently have excellent possibilities in areas where it is necessary to rely on one man initial attack in light fuels. White said that the tests so far indicate that one man with a KEMPAK can handle a fire in light fuels more efficiently than with the conventional pump. The results of the tests made on the Manistee are only indicators, as opportunity to use the KEMPAKS was limited to three fires from 4-10 chains in circumference.

White said: "We have found the KEMPAK to be of most use in light fuels which are preponderant in this area, but they are of little superiority over conventional pumps in heavy fuels such as slash and down timber. In light fuels (grass, leaves, fern and litter) their rate of line production is about three times that of the water pumps. About one-half the amount of liquid (foam) is required for the KEMPAK as is required for water pumps for the same amount of line. Although the KEMPAK is heavier to carry than the back-pack, operation of the pump is easier and less tiring.

"Cost is an item that we cannot very well decide upon at the present time, since the biggest cost is the depreciation of the equipment, and no rate can be set up at present as these pumps were practically hand-made and cost appreciably more than standard pumps. The cost of re-charging (about $1.00 per refill) is negligible compared to the increased rate of line production in light fuels." R-9 "Daily Contact"

THE EDITOR DISCOVERS

Considerable discussion and comment have been held as to the proper interpretation to be made of the term "unappropriated public forest lands" as used in the F.Y. 1939 appropriation act which authorizes use of public funds in forest fire protection work, especially as to its application in the case of public forested lands lying within Taylor Grazing Land Districts. The opinion of the Solicitor of the Department of Agriculture was requested and his reply, under date of August 10, 1938, is in brief as follows:

The Forest Service is not "obligated" to furnish fire protection for forest lands in "Taylor Grazing Land Districts, but may expend its own appropriation to fight fires in such grazing districts (a) where such fires threaten National Forests or (b) where such fires threaten "unappropriated public forest lands" outside the grazing districts. In his opinion, the specific nature of the appropriation to the Grazing Division of the Interior Department (with the possibility of a contra holding noted), precludes expenditures by the Forest Service for the protection of forest lands in grazing districts administered by the Interior Department, except as noted under (a) and (b) above.

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President Roosevelt has proclaimed the week beginning October 9, 1938, as Fire Prevention Week.

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Dr. Willis Ray Gregg, 58, Chief of the U. S. Weather Bureau, died at the Blackstone Hotel, in Chicago, on the night of September 14. He had been stricken with a heart ailment while attending a meeting of the Civil Aeronautics Authority and air transport officials during the previous week. Dr. Gregg had been connected with the Weather Bureau for 34 years and became its chief in 1934.

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In accordance with modern trends, the Lake States Forest Experiment Station, during the past summer, has tried, as an experiment and in order to conform with the schedule of the University of Minnesota, a five-day week. Working hours were from 8 to 4:30 with 40 minutes for lunch and Saturday entirely free. Since it was an experiment, it is interesting to learn how it worked out.

The Station Director reports that all personnel contacted said that they liked the schedule very much and felt that they had been able to use their Saturday morning time to good advantage. The activities engaged in during this time ranged from educational reading to week-end vacations. The efficiency of the Station has not suffered in the least.

The only drawback was that it placed an additional burden on a few members of the staff who had to handle information requested by the Washington Office either by wire or air mail on Saturdays. The wire requests were sent to the house addresses and therefore required that someone should always be available to attend to these emergency requests. (The Washington Office is asking for the record to see how many times this happened during the summer.) For several members, therefore, it only meant longer hours during the week without the compensation of a free Saturday.

The conclusion of the Director is that in view of the benefit to the rank and file, the experiment of having Saturday free during the summer months was entirely satisfactory.

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Mr. Russell Lord has been selected - and attached to the Chief's office - to unify and edit the Recreation report and get it in shape for publication along the lines suggested by the Department. Mr. Lord has a wide background of experience in the Department of Agriculture and as an independent editorial writer outside the Government service. He has for several years served as Associate Editor of "Country Home".

Mr. Lord will visit a number of our recreation areas to get the feel of the whole problem. He is now in the White Mountains with Mr. Hammatt and will probably make some other trips before winter. The Regions will, of course, extend him every courtesy when he visits their offices.

IN DEFENSE OF YESTERDAY'S RANGERS

By H. O. Stabler, R-8

After some deliberation I wish to express myself on the article in the August 22 issue of the Bulletin "How Not To Be A Forest Ranger". It seems to me that someone has tried to be humorous or that some "forest friend" had been spoofing "one of today's rangers". There may have been a time when a young man with "pretty spurs" did some or all of the things alleged by the "forest resident", but let's analyze it a bit.

Down through the years green young foresters from the effete East or other places have taken up their life work in the West but in rare instances were they assigned to the position of ranger until they were seasoned and matured. Is it not true that in the western forests the first forest school men to be given ranger assignments were western men from local forest schools or men from the West who had attended eastern schools without losing an understanding of the West and its people? So it does not seem probable to me that this young Paul Revere--and it has never been my understanding that Paul dressed like a forest ranger-- could have cut his devastating and non-public relationing course in the West; instead, it must have been somewhere East or almost East of the Mississippi River. I can hardly believe it was in Arkansas because at the period when such a thing might possibly have happened they would not have listened to the ravings of Paul, they would have just shot him! Coming farther East in the middle and late teens and on up into the early twenties there was some very green timber but it did not wear spurs--they were not needed on Model T Fords--and actually, had there been such an organization as the FBI Paul would have often needed to call upon it in order to find a saddle horse.

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SERVICE BULLETIN

CONTENTS CONFIDENTIAL

WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES. IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT xxx THE TIME HAS COME FOR A CHANGE. AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY xxxx TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES, WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER. Theodore Roosevelt

RECEIVED
1938
U.S. Department of Agriculture

Vol. XXII No. 21 Washington, D. C. October 17, 1938

THE PLIGHT OF THE SHORT TERM EMPLOYEE IN THE FOREST SERVICE

By Roy Headley, Washington

The world today is so full of human misery that most people grow callouses where their sympathies ought to be. Those who have some measure of job security tend to look the other way when confronted by the distress suffered by those who have no such security. Perhaps they must look the other way in order to preserve their own sanity.

Nevertheless, there must be many people who can appreciate to some extent the plight of a seasonal worker; who can understand something about what this world of searing poverty in the midst of plenty does to those who can find only seasonal jobs.

Those whose feelings are still capable of throbbing in sympathy with the woes of the seasonal worker should consider the short term employees in the Forest Service. Most of them are fire guards employed for an average of three to four months per annum. In the days of the prosperous past they could get other jobs when not needed on the National Forests. That is impossible any more except in very infrequent instances. Although their annual wage is far less than that of a WPA worker, they are refused the WPA jobs which would enable them to eke out some sort of a self-respecting existence. For some reason, the fact that a man has worked a couple of months for the Forest Service is used to deny him any opportunity to earn the small WPA wage for any part of the remainder of the year. Many of these men have families - wives and children who as human beings have a right to decent shelter, clothing, food, recreation, music, education, books, medical service, and some little sense of job security. Many others would have families - but how can a man marry and make a home on $400 a year? Many have homes. Subsistence homesteads are easy to get if a man has enough income to live on one of them. Many are educated and accustomed to ways of living that cannot be maintained on the annual income of a Forest guard.

Our five or six thousand short term workers can be put up against any similar group anywhere for character and skill - if that has anything to do with the subject. The very nature of their work in the Forest Service requires that they have the qualities of self-reliance and rugged individualism which many fortunately situated people love to talk about with pious fervor. Some day, some gifted writer will discover what a wealth of material there is for him in the life and exploits of the lookout man, fireman, and dispatcher. He will convey to a wide group of readers something of what it means to be so constantly on the alert that after weeks of no fires discovered, the lookout man detects a smoke within a few seconds after it becomes visible. He will portray the fireman doing his stuff in the middle of black night - floundering through the brush and over the logs and rocks by the light of a low powered flashlight. He will picture the anxiety of the man who cannot find the fire he has been sent to. He will find words to make the reader appreciate the nature of the critical struggle when a fire guard alone, or with a few helpers, struggles in an apparently hopeless effort to hold a fire from breaking away into an unmanageable run. For faithful devotion to the demands of his job, without benefit from the forms of inspiration or supervision which are necessary to keep most of us going, the short term fire control worker has no peer. There are failures and weaknesses, to be sure, but the amazing thing is that they are so few.

These men may be better off than millions who have been kicked around until their spirit is crushed. These men still have zest and fortitude and self-discipline - or they would not be Forest guards.

But as upstanding human beings, they are entitled to a lot better treatment than they get from their employer. Probably everyone will agree. But what to do about it? The first thing is to let public opinion know about the plight of these men and their families; to tell people that while trying aggressively for more decent treatment of labor in general, the Federal Government should put its own house in order. Unless the Forest Service and the general public become aware of the cruel way short term workers in Government Service are now being treated, nothing is going to be done about it.

If we had hundreds of letters describing specific human situations brought about by this seasonal employment with no chance for off-season jobs outside, something could be done with them. Perhaps we could find a good writer to prepare from such letters a moving story for a national publication. Perhaps we could use such letters to move Congressional Committees. We could get a "Ranger Jim" hour devoted to the plight of the fire guard and other short term workers. Such letters could be written by short term men themselves, their wives or sweethearts, District Rangers, Supervisors, and Regional Office men. There is at least one Regional Forester who has personally listened sympathetically but helplessly to many moving appeals for jobs - any kind of jobs which would permit families of short term men to hold together and keep going.

If I receive a flood of such letters, I will undertake to arrange them and put them into the hands of men who will use them effectively.

A SASH SAW IN THE SOUTHERN APPALACHIANS

By Charles R. Ross, Chattahoochee

For more than a century, until they were displaced by circular saws, water-powered sash saws manufactured the lumber used in this country. By comparison with modern milling machinery the sash saw was a rather crude contrivance. A single-blade saw stretched in a sash, or frame, running between side guides was given up-and-down motion by a crank attached to the water wheel. The carriage, upon which the "set" of the logs was measured with a hand rule, was driven by a primitive ratchet feed works and had to be gigged back by hand. Familiar in America since colonial times, sawmills of this type became rare over most of the country soon after circular saws came into widespread use about 1850.

In some parts of the Southern Appalachian mountains, however, sash saws continued to be used after they had become extinct elsewhere. Field assignments on National Forests in northern Georgia and eastern Tennessee have given me close acquaintance with several backwoods settlements, and among the numerous water mills I see from day to day mountaineers point out a number that once pulled sash saws. Many residents, and not all of them grey-headed, remember seeing these sawmills in operation. Possibly because they have not yet become adjusted to the new way of life brought in by roads, radio, relief, and tourists, many mountaineers like to recall the old days. Among other things, they talk about the old water sawmills. It seems that in its day the sash saw was highly regarded back in the mountains where machinery of any sort was scarce. And it always seemed an especially clever rig to those hill folk who lived "way back". The impression made on one of them is illustrated by the following story, which was told me by a friend who grew up in the same mountain locale.

About a generation ago, in that section of southeastern Tennessee (now included in the Cherokee National Forest) where the Ocoee River emerges from the Blue Ridge, a man named Gassaway had a sash sawmill. Working of copper mines several miles up the river brought a demand for sawed dimension timbers, and lumberman Gassaway decided to run his mill day and night. This meant hiring a helper to operate the mill at night. The individual he employed happened to be a young mountaineer from a secluded settlement near my friend's old home. The new sawyer was eager to operate the mill, but withal poorly informed of developments very far beyond the ridges that walled in his native hollow, which, indeed, had never felt even a backwash from the tide of progress. The sawmill fascinated him from the start and, after a day of instruction, he became the sole member of the night shift. Every evening after supper he would come on the job and take care of the cutting through the night, being relieved by the proprietor the next morning. By lantern light, and with the sing-song refrain of the saw for company, he took off the sawed pieces and rolled fresh logs on the carriage.

He returned to his native cove after he had worked over a year at the sawmill. Proud of the job he had held, he was always telling the neighbors about the mill and what he had done. "I piled up 1500 feet every night that come", he would say. "That was the fastest saw in the country. Why, it went so fast a man could hardly see the teeth!"

Thinking of band saws that travel one and one-half miles per minute, moderns may smile at what the "covester" thought was speed. Yet one feature of this story is interesting in another way. Despite the laborious slowness of its strokes, Gassaway's sash saw seems to have had a surprising output. How many present-day mills, for instance, turn out 1500 feet per day per man employed at the mill? Authoritative sources state that the sash sawmills usually had a capacity of less than 500 board feet per day. Possibly Gassaway had an improved, later model with more than one saw hung in the sash. He was cutting timbers, which would increase the footage sawed in proportion to sawing time, and his work-day was long. These factors (and surely no one begrudges a few handicaps for such an antique saw) would help to explain the 1500 feet per man-day which, my informant assures me, was the performance. But allowing for some question on this figure, there are folks beyond the ridges who still see room for debate over results obtained in this age of speed.

TRAINING PROGRAM

"Prize for the most unusual in-service training program should go to one uncovered by Mr. Earl Brooks, who recently published a book on the subject. He found that the Forest

Service regional heads often 'phone rangers in isolated areas, assign them a theoretical problem and allow a specific time for its solution. At the expiration of the period the rangers 'phone or mail their answers to headquarters." -From Alfred Friendly's column in the "Washington News", September 28.

PLANTING POW-WOW IN LAKE STATES

By M. A. Huberman, Washington

Most of the regeneration researchers and eastern planting men of the Forest Service spent a week together in Ohio and the Lake States looking over planting and nursery operations and discussing what they saw, what has been accomplished so far, and what needs to be done in reforestation.

The group, starting at Chillicothe, Ohio, on Monday, September 12, as guests of Supervisor McKennan of the Wayne Purchase Unit and the Central States Station staff, visited the Chillicothe Nursery, some of the older State plantings, and several of the Station's studies in Ohio.

In Michigan on Tuesday, Supervisor White of the Manistee Purchase Unit and the Lake States Station staff took over the role of host and showed the group some sand plains country, the Chittenden Nursery, and plantations in the various stages from site preparation to release operations. Of special interest were the towns of Irons, Dublin, and Wellston, in the heart of an area unwisely colonized by high-pressure methods from 1900-1920. The fences of uprooted white pine stumps around abandoned farms symbolized the ill-advised handling of this land; while in the shadow of these fences, the young jack and red pine plantations, some of them planted with the help of local labor, seemed to represent a new opportunity to try again.

Wednesday, the group was guided by Supervisor Murphy of the Nicolet National Forest and J. H. Stoeckeler, through successful direct seeded areas, young plantings and sowings on recent hardwood burns, some older plantations, and the Hugo Sauer Nursery, in Wisconsin.

At the Eagle River Training School, which Region 9 kindly made available, the gathering spent three interesting days and evenings discussing all phases of seed, nursery, and planting problems.

The first day's discussion under the chairmanship of I. T. Haig concentrated on various phases of seed problems. Included were such topics as "Source of Seed and Seed Certification", by H. L. Shirley; "Prediction of Seed Crops and Index to Cone Maturity" by P. C. Wakeley; "Seed Extraction" by R. C. Rietz; "Seed Storage" by P. C. Wakeley; "Seed Testing" by A. G. Chapman; and "Direct Seeding" by H. L. Shirley. Brought out in the discussion were the success in seed extraction by kilns designed by the Forest Products Laboratory, the continued interest in, and existing examples of, direct seeding efforts, the use of seed source zones in planting operations in the shelterbelt project and in several of the regions, and the development of a simple cone maturity index for longleaf and ponderosa pine. This fund of information is indeed something of which we can be proud and which we should make available to all agencies faced with such problems. Much remains to be done in this field, and a clarification of Forest Service policies on seed source certification and seed testing methods, and the publication of such policies were recommended by the assembly.

Friday's session, of which F. H. Eyre was chairman, was devoted to planting. The group covered the subjects of "Successful Plantations" by L. S. Gross, "Causes of Mortality" by P. O. Rudolf; "Specifications of Planting Stock" by J. H. Stoeckeler; "Planting Techniques" by H. B. Wales, "Adaptation of Species to Site" by A. G. Chapman; and "Hardwood Planting" by L. S. Minckler. Discussion brought out, among other things, the development of new methods of plantation re-examination by means of line-plot and stocked quadrat procedures; and the widespread adoption of seedling grading before field planting.

The group recommended that procedures of plantation re-examination be reconsidered locally in the light of the development of more satisfactory line-plot and stocked quadrat methods.

With L. S. Gross as chairman on Saturday, the group considered nursery practice and research. This included the topics of "Soil Management" by F. M. Cossitt; "Raising Stock to Specifications" by J. H. Stoeckeler; "Nursery Inventory" by J. T. May, read in May's absence by F. M. Cossitt; and "Service Aspects of Research" by F. M. Cossitt.

The discussion was lively throughout the three-day session and the resulting exchange of ideas was highly stimulating. The theme which seemed to run through the entire meeting was the fund of information available and the need for rapid exchange of such information between research and administrative men to help solve remaining problems. Such exchange of information needs to be implemented through more intensive use of preliminary releases, occasional papers, the Research Monthly Reports, and the Service Bulletin, as well as more complete formal publications.

We "foreigners" (from outside Region 9) could not help but be impressed by the eagerness to use the best available information as a basis for planting practice, and the awareness of local problems, both social and technical, to say nothing of the cordiality, shown by the Regional Office man, the Supervisors, the planting staff men, and the Nurserymen of Region 9.

A UNITED STATES FOREST ACADEMY?

By Theodore Krueger, Black Hills

Eighty-one forest school men have worked under my supervision on the Black Hills Forest during the past six years. Observation and training of these men have left definite impressions which, after much thought, lead me to believe that some improvement in their preparation for National Forest work might be possible.

Some of them were mentally bright and undoubtedly top students in school but owing to lack of personality, untidyness, lack of previous social contacts, or an unimpressive physique, were unable to deal properly with the public, which is an important part of a forester's job in National Forest work.

Some had not learned that in Forest Service work they are public servants; they figured that they were more important than their job. Again, some had not been trained in leadership and to cooperate with others.

Many others, while they had passed the Junior Forester or Junior Range Examiner Civil Service examination and were supposed to be qualified to fill well paid practical positions, were totally unprepared to apply their theoretical knowledge.

In two cases, very fine prospects for our work, after spending four and five years in forestry training and passing the Junior Forester examination, were found to be physically unfit. One was unable to pass the eye test, the other was found to have a slight murmur of the heart.

Thus, in one way or another many of these eighty-one men have presented problems to the Supervisor which should have been corrected at an earlier time. Some should never have continued their studies with an aim to work on a National Forest.

Would not a special training of the best mental and physical applicants raise the standard of our Junior Forester personnel and, eventually, the prestige of the Forest Service?

This special training for our work could be accomplished in a United States Forest Academy. The students might be selected after competitive mental and physical examinations from those applicants who have had the equivalent of two years of general college work. These selected men might then be given training for a period of three or four years, including the practical application of the work. A strict weeding out process could be carried on during the whole training period to eliminate those who are in any way unfit. An important duty of the school would be to instill in the student the feeling that his will be a work of Service.

The three or four years' work under close observation would give an opportunity for discovering the special aptitude of the student, whether it be timber management, range management, reforestation, recreation development, research or other lines, so that he could be placed to best advantage.

Aside from the director and administrative personnel all teachers could be assigned for short periods. These teachers could be chosen from the leaders in each line of work. With frequent changes of instructors and with special lecturers, the teaching would be up to date at all times. Other forest schools could still continue to train foresters for private industry, State work, research, and other forestry work.

The Army has its West Point, the Navy has its Annapolis; should not the Forest Service have its own Academy?

PLANNING FOR FLOOD CONTROL
(Concluded)

By E. N. Munns, Washington

(The first two phases of the flood control program, the preliminary examinations and the detailed surveys, have been treated in previous issues. The flood work of the Department of Agriculture is "for waterflow and run-off retardation and soil erosion prevention".)

The third step in the flood control program is the "action" phase, in which the plan outlined in the detailed survey is put into operation.

In the Detailed Survey of a watershed, generalized plans are presented with their cost estimates. Except in instances where some major structure is involved these plans will not supply specific "blue prints" on which a contractor could prepare bids. The survey plans will show that in one area the geology and soils are such as to make the use of contour trenches highly effective and that these should be of such and such a size, be located on certain slopes, be built at certain distances apart and so constructed as to insure maximum surface detention and storage. They will show for another area the need for planting, will prescribe the species or special manner of planting, and may supply such instructions for planting as may be needed to insure prompt "water retardation or erosion control". They will describe the type of farming practice or organization best suited to the area (but not bring it down to the individual farm). They will show the land that should be taken out of cultivation and the use that should be made of it. They will suggest the need for bank erosion control, stream-bed paving, check dams and other forms of minor measures, etc. and outline the principles that should be followed, but will not necessarily give the location of each such structure. In other words, the plan is a plan, not a blue print.

The preparation of the blue print is the job of the "action group". After the general watershed plan has been approved and funds are available the flood control operations become the task of the "construction agency". Up to this phase, the planning job has been essentially a research undertaking in which the various bureaus participate cooperatively and in accordance with the contributions each could make to the problem. Now the action or operations phase is assigned to those bureaus and agencies best fitted to do the work. This means essentially either the Forest Service or the Soil Conservation Service, depending on the type of land or problem involved.

Assuming the Forest Service problem is one that affects public forest lands, the job would be one handled by the National Forest concerned. Part of the plan might involve a planting program or cutting and logging methods. The Division of Forest Management would under the general survey plan, develop the specific program, and see that it is properly carried out. If a range land problem is involved, then the Division of Range Management would be called into play. If the problem is one of construction, the Division of Engineering would step in. In other words, those phases of the action program that relate to a specific field of activity then become properly the task of the Forest Service unit most concerned. Coordination in such enterprises and responsibility for seeing that the approved plan is carried out would rest in the newly staffed Division of Erosion Control.

The problem of how to handle the situation on private forest lands has not yet been solved. The Flood Act requires that works of improvement must be maintained. What assurances are possible from a private land owner? To what extent will he benefit? How far should the owner participate in the cost? If he will not cooperate can he be compelled to do so if his lands are in bad shape? Further the problem is complicated by the fact that Congress has been toying with the idea that lands on which structures are built must be Federally owned and operated. And there are other questions, some raised by the Flood Acts, which are too numerous and too involved to mention.

The action or operation program of flood control is one that will involve considerable labor. Undoubtedly, the CCC will strongly participate. But entire dependence cannot be placed upon the CCC as the local residents ought not be deprived of cash revenues. In some areas, it will be possible to use WPA or other forms of relief labor. However, the President has requested that in the first program people should be taken from the relief rolls. This in effect tells us that "force-account" labor, or that directly hired at going wages, should be used in preference to labor on relief. Just how the work is to be done, the type of labor or the character of service to be rendered, will probably have to be decided for each watershed.

Thus it is that the flood control program of the Department is no simple one. It is huge. It embraces practically 90 percent of the land area of the country. It involves all kinds of land - flat, hilly, mountainous. It involves all kinds of crops - corn, tobacco, grapes, orchard, truck, peanuts, etc. It involves all kinds of cover - forest, grass, chaparral, brush, etc. It involves all kinds of land ownership - resident, non-resident, farmers, tenants, banks, corporations, etc. It involves our polyglot nations of every race, historical background, and social beliefs. How could such a program be more difficult?

However, because it is big, constructive, and difficult, the Department of Agriculture and the Forest Service welcome it. It appeals to the imagination, the spirit of service, social consciousness, and idealism that long have characterized our work. It appeals to all of us who believe strongly that by caring properly for the soil and its cover we can conserve and make more effective and useful our water resources.

SIGNS VS. SCENERY

"Let us give you a contrast between conservation and destruction. From Plymouth, New Hampshire, to North Woodstock, runs a fine State highway. On one side is the tumbling Pemigewasset River, the chief tributary of the Merrimac. To the right and left steep hills rise abruptly, and towering above them the great mountains of the Franconia range. This valley might have been designed to be one of the fairest spots on earth. Yet the 20 miles of roadside is now one dreadful, reeking slum of tourist camps, filling stations, Come On Inns and Robins Nest Rests. The natives call it Flush Toilet road.

"Beyond North Woodstock the State steps in. One enters Government land. The flush toilet signs abruptly end to be replaced by tall trees, flashing brooks and the natural tangle of roadside. The driver, taut and tired in his seat, suddenly breathes deeply and his clenched hands relax upon the wheel. Stopping to gaze up the cliffs of Cannon at the Old Man of the Mountain, instead of a raw, touting commercialism, he finds dignity and peace. He will come again and bring the family.

"The administrator need not advocate the States as against individual enterprise, but one can certainly point out to individual enterprises that if they do not adjust themselves to preserve some semblance of the dignity of the surrounding environment in areas like this, the scenery resource will presently be valueless." -Stuart Chase in "Survey Graphic".

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THE EDITOR DISCOVERS

The Bureau of the Budget allowed the Forest Service two full days (September 29 and 30) in which to present its explanations of the need for increased appropriations for the fiscal year 1940. No commitments were made by the Budget Bureau at the time of the hearings as to whether or not any of the increases will be allowed. Information on the amounts allowed by the Budget Bureau for the fiscal year 1940 will probably be made available in November.

An intensive safety campaign in CCC camps over the past four years has brought dividends in the form of a sixty-six percent reduction in the accident rate among enrollees, according to a recent news release issued by the Director's office. Since the safety program was launched in 1934, the monthly accident rate among enrollees has been reduced from seventeen per thousand enrollees to eight per thousand enrollees on June 30 of this year. This includes not only all accidents and injuries that might occur on the work projects and in the camps, but also those while the enrollee is off duty or on leave of absence.

The article "Hell and High Timber" by Corey Ford and Alastair MacBain, which appeared in "Collier's" for June 25, is reprinted, in condensed form, in the "Reader's Digest" for October.

On October 7 "Uncle Sam's Forest Rangers" radio program went on a new time schedule. In the future it will be presented at 12:35 p. m. E. S. T., immediately following the opening announcements of the National Farm and Home program.

"The Nation's Forests", by William Atherton DuPuy, has been published by the Macmillan Company. A second book, by Mr. DuPuy, entitled "The Life of a Forest Ranger" is expected to be published in the near future.

Written in popular style, "The Nation's Forests" tells the story of the creation of the National Forests, the extent and types of forests they contain, and their purposes, uses, and protection. Although designed primarily as a supplementary text and reference book for high schools, it should appeal to the lay reader as well as to the student. The book contains some 260 pages and is attractively and profusely illustrated.

Mr. DuPuy, who was employed by the Washington Office for several months last year to do special feature writing for the Service, visited a number of the National Forests and obtained good background material on forest activities. He also cooperated closely with members of the Washington Office in the preparation of the text. Most of the pictures used as illustrations were furnished by the Forest Service. The Introduction to the book is by Mr. Silcox.

The boundaries of the Walnut Canyon National Monument, Arizona, have been enlarged by Presidential Proclamation, dated September 24, 1938, to include a prehistoric Indian fort and other ruins of the ancient pueblos not embraced in the original area set aside for a national monument. By this proclamation 913.16 acres are transferred from the Coconino National Forest to the National Monument.

According to an item in the Atlanta "Journal" for September 25, directors of the Herty Foundation have appointed State Forester Frank Heyward, Jr., as acting field director, and Dr. Charles H. Carpenter as technical director to carry on the work in pulpwood development started by the late Dr. Charles H. Herty at Savannah. Mr. Heyward has received the consent of Governor Rivers temporarily to leave his post with the State Forestry Department to accept the acting field directorship of the foundation. Dr. Carpenter, chief chemist of the Herty Foundation Laboratory, has served as executive director since Dr. Herty's death. Mr. Heyward will serve in the field post as a temporary capacity and will go back to his State forestry job when a permanent successor to Dr. Herty is named.

By Administrative Order 2,338 acres included within the Pennsylvania Farm Lands Utilization Project have been transferred from the Farm Security Administration to the Forest Service. The tract will be designated as the Standing Stone Experimental Forest and will be administered by the Allegheny Forest Esperiment Station. It is in Huntingdon County.

Contributions to the funds being raised to endow a national fire medal, a short announcement of which was made in the September 19 issue of the Bulletin, should be sent to Mr. Fred E. Hornaday, American Forestry Association, 919 Seventeenth Street, N. W., Washington, D. C.

Announcement has been made by Regional Forester Kelley that Perry A. Thompson, present Supervisor of the Willamette Forest, will head the new Division of Personnel Management for Region 1.

SERVICE BULLETIN

CONTENTS CONFIDENTIAL

1938 ☆
U. S. Department of Agriculture

> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT xxx THE TIME HAS COME FOR A CHANGE AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY xxxx TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES. WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER
>
> Theodore Roosevelt

Vol. XXII No. 22 Washington, D. C. October 31, 1938

FARMERS SHARE COST OF SHELTERBELT PLANTING

By E. L. Perry, Prairie States Forestry Project

We have this year probably had a greater number of Service visitors to the Prairie States Forestry Project than during its entire previous career. Modesty forbids the suggestion that "the world is wearing a beaten path to our door," at least for the reason given in the rest of the famous quotation, but whatever the reason, we have been very happy to have the visitors and I wish that every member of the Service could inspect the results of the program. Like Grand Canyon and Pikes Peak, photographs fail to do these shelterbelts justice.

One of the things that has struck me with particular force this year is the much-improved conception of the purposes and methods of the Project displayed by visitors. No longer does anyone want to see the long rows of trees leaping blithely o'er hill and dale from Canada to the Gulf, and even the fact that the plantations are religiously cultivated no longer arouses comment. There is one ghost that remains to be laid, however, and that is in connection with the cooperative nature of the program. Nearly all new visitors to the Project have the impression, and it is therefore presumably prevalent throughout the Service, that we hand over the completed shelterbelt plantation to the farmer tastefully done up in blue ribbon, with a free trip to Hollywood, perhaps, thrown in as an added inducement.

Doubtless the impression dates back to the far beginnings of the Project – Lord how far back those 1935 days seem – when we did in fact offer the landowner about everything in the book, and then sometimes had him accept the proposition only as the lesser of two evils – the other being the necessity for going on hearing us talk. But all that is long since changed. Now the farmer makes a very substantial contribution toward the cost of establishing the plantation, and would make a considerably greater one if we were in a position to require it. Having only ERA money to work with, however, from which even salaries of permanent personnel must be financed, we must of necessity take on some jobs requiring principally hand labor which the farmer could just as well do, in order to support our "other" money requirements.

It is difficult to get any two of our statistical gentlemen to agree as to just what this contribution amounts to in terms of percentage of the total cost of ultimate establishment of the plantation, but roughly the job is on a 50-50 basis. We grow the stock and plant it, while the farmer prepares the planting site, cultivates the plantation, splits with us on the fencing and rodent control, etc., etc.

During the first year or two perhaps it was just as well that conditions were such that we could offer to take on the long end of the job; admittedly the program was hard to start rolling. But public demand for it now is such that when and if Uncle Sam decides to take a look at the Project through the bottom part of his bifocals and finds it good enough to justify digging up a little unfettered cash, we can easily find all of the cooperators that we can handle who will gladly take on any additional parts of the job that we choose to turn over to them.

SMALL POTATOES

By R. D. Daigle, R. 5

Ranger Bill once said, many years ago, "I like to criticize other people's work 'cause it takes so little effort." This is the thought that comes to one's mind after reading H. B. Shepard's article, "Forest Fire Publicity" in the September 19 Service Bulletin. I am moved to rise in defense of the authors of "Hell and High Timber" which appeared in COLLIER'S for June 25 and was reprinted in part in the October READER'S DIGEST. Mr. Shepard criticized the erroneous use of figures in the COLLIER'S article.

In our frank opinion, Ford and MacBain by their story have accomplished as much for the cause of fire prevention and public support of national and private forest protection as any individual or group - inside or outside the Service. These authors were appealing to 130 million U. S. citizens, not a mere handful of technical foresters, and the thought they gave through COLLIER'S to reading America is golden to the cause of conservation and forestry. They may have departed from correct figures, but they achieved correct thought. As far as figures are concerned they don't amount to a hill of beans in the eyes of the public anyway.

As a newcomer who has long viewed the Service from an outsider's standpoint, it seems that the Forest Service is becoming figure conscious when it should be thought conscious. It is not believed that our author friends deliberately misquoted figures, but rather that they, being unfamiliar with forestry problems, misinterpreted the data given them. It is hardly fair for us to criticize them, however, when almost every Government bulletin and report gives divergent statistics on fire causes, area burned, and resulting damage.

That brings us to the two points at question: (1) What harm befell the cause of forestry from this article? (2) What contribution did the article make to the cause of forestry?

Answering question one. How many COLLIER'S readers paused long enough to wonder if the figures were correct or checked with the Copeland Report (or ever heard of such a report) for statistical accuracy? As far as that goes how many people know what a million acres is, or a thousand board feet, to say nothing of $50,000,000? Except for the dollars, those figures may be somewhat tangible to foresters. But to the public they are intangible except to point out that something big is happening, that there is a tremendous waste of natural resources, and that the public can do something about saving and conserving that wealth.

What was accomplished by the article? This question may be harder to answer because there is no measuring stick for the returns on a fire prevention story. But we know that

COLLIER'S has a circulation of over 2½ million, and the READER'S DIGEST probably another million, so adding the family circle of those subscribers we can quite safely say that ten million people read and received some measure of public education from "Hell and High Timber". What Forest Service report, bulletin, or story ever received as much public attention?

Perhaps Mr. Shepard is correct in his opinion that it is possible to be more careful with figures and still put over a story that national magazines will accept and the public will read. Accuracy is one of the greatest virtues of any writer. He wants to see it achieved more than his readers do. But his message is the important thing. Instead of criticizing them, the Forest Service should be grateful to writers like Ford and MacBain who command a nation-wide audience and are able to put across a fire prevention message that packs a real wallop.

ANOTHER WANT AD

By E. N. Munns, Washington

Help Wanted: Must be good, reliable and modern! Can be long or short. Should be strong. Anyone can supply. Simply put name and address on a sheet of paper and supply the desired information. What kind of help? Oh - just some more data - data on the effect of cutting and logging on streamflow and erosion.

Recently it was necessary to review the evidence on the effect of cover on streamflow and erosion. It was discovered that while the literature is fairly replete with references to the deleterious effects of fire, overgrazing, and improper agriculture, there is practically nothing on the effect of cutting or logging. Certain it is that both silvicultural practices and logging methods can, and undoubtedly do, adversely affect streamflow, stream behavior, and erosion. Clear cutting, even if not followed by fire, should have certain harmful effects, but what are they? And, under what conditions are these effects most pronounced? Is it possible that in the absence of fire the litter and slash maintain the absorptive capacity of the soil and prevent erosion? Where are the facts? Certainly there must be places where almost any cutting, even light cutting, has had an adverse effect on streams, but no one seems to be able to tell just where. Cutting on steep slopes must under some circumstances have caused erratic stream behavior and perhaps erosion, but why are not such examples more common?

Logging methods have greatly changed. Years ago the old bring-em-in-fast policy and machinery were in effect. Logs were dragged up hill and down dale by main force and awkwardness. Now the modern logger, praise be, all but nurses his logs as he brings them in. The power skidder has given way to big wheels, and the high lead to the cat. Even the loader now has been replaced by a couple of junior foresters who toss the modern logs from deck to truck by hand. Under the old method great gullies were cut in the mountain. Straight up and down the slopes, new watercourses were built. But now - have logging methods so changed that no damage is done on streams? Or, is it that there is so little cutting any more that the problem has solved itself?

I've looked through photograph collections. I've glanced over reports. I've asked acquaintances in and out the Service whether and to what extent present day cutting and logging affect streamflow and erosion, but so far, I've had but little real response.

Now I'm stuck. And always when I'm stuck I ask the man who knows, the man who month in and month out sees cutting and logging on every hand while we Washington dwellers twirl in our swivel chairs. Last spring I asked for dope on forest and snow relations. Now I'm asking you again, have you some dope? Don't write a formal letter, just pass the word along by word of mouth, pencil, or what have you. Just give the time and place and describe the practice you believe is responsible for the resulting stream behavior and erosion, if any.

DON'T OVERLOOK LANTERN SLIDES

By W. R. Mattoon, Washington

Motion pictures have to have at least the quality of entertaining. But when it comes to instruction and real information, it's the nicely hand-colored lantern slides that do the trick. This conviction is based upon observation and experience over a period of years with rural and town audiences.

In meetings aimed to influence people to change their ways of thinking and acting or practices, the motion picture is extensively used and properly so. But is it best to stop there?

As a diversion in a motion picture program people are ready to relax and will give close attention to the showing of still pictures or lantern slides. Their real contrast to motion pictures makes them impressive. Then there is the additional feature of the voice of the speaker "in person". A good way is to sandwich in the slides toward the latter part of the program or "entertainment", or perhaps better wind up the program with slides.

The announcement of the lantern slides feature might be made in some such fashion as: "We have a few specially selected pictures to show you, each one a gem in the form of a colored lantern slide. These will give you some local views right here in (name of county or State). I am sure you will not want to miss one picture or one word about the pictures. The views have been very carefully selected to show you how to make more profit by forest farming."

In connection with their showing, the speaker talks concisely, directly, friendly, and enthusiastically about each picture, whether it be protection, cutting and stand improvement, planting, recreation, or wild life. Perhaps 15 to 25 views represent a good number for the average audience. If well done, this personal message will be the information and inspiration that the audience carries home and puts into practice.

LAND USE PROGRAMS OF THE DEPARTMENT OF AGRICULTURE

(Excerpts from article by Dillon S. Meyer, Assistant Chief,
Soil Conservation Service in "Soil Conservation" for August 1938)

"From the standpoint of national adequacy, effective soil and water conservation requires the coordinated treatment of all lands in every part of the country and the applied cooperation of many farmers, State institutions, and Federal agencies.

"The soil-conservation district provides an avenue toward this broad objective. It is a legally constituted subdivision of the State, possessed of unusual possibilities for furthering better land utilization through cooperative, community action. The responsibility for the establishment and management of the district is vested in persons within the district itself, and within the State. The district supervisors, representing their neighbors within the district area, may call on any and all agencies for assistance. Moreover, the supervisors are assisted in their requests for help by their State soil conservation committee, which may also aid the district in other ways."***

"The soil-conservation district, of course, is not a creation of the Soil Conservation Service; nor does the district come within the administrative purview of the Service. Created by farmers under State law, its operation is essentially local. The act of Congress, establishing the Soil Conservation Service, however, makes the control of soil erosion a national policy, and the Service an instrument in effectuating that policy."***

"Accordingly, the Service is vitally interested in furthering the proper establishment and operation of soil-conservation districts. And because they promise widespread progress in soil conservation, districts necessarily assume important proportions in Service planning. Currently, these plans anticipate a steady increase in the number of districts, and subsequently, a steady increase in the number of district requests for various types of assistance."***

"Thus, the apex of Service activity is now being moved away from demonstration areas toward districts, with cooperation the keynote. The ultimate growth and area of districts are, of course, matters of conjecture. Yet it is entirely conceivable that within the next decade they will cover a substantial segment of the country's erodible land. If this possibility materializes, no better avenue than the district will be available to the Service, and to other governmental agencies, for encouraging Nation-wide soil conservation and better land use. Looking to the future, Service planning considers such an eventuality."

AMERICAN LEGION RESOLUTION NO. 637

Subject: Conservation of Natural Resources.

WHEREAS, unsurpassed natural resources have been basic to the social development and material power of the American people, and

WHEREAS, the continued benefits of natural resources demand their protection and future wise use to make them permanent, and

WHEREAS, progressive depletion of our natural resources now confronts the nation with necessity for remedial action, now therefore be it

RESOLVED, by the American Legion, in National Convention Assembled, at Los Angeles, California, September 19-22, 1938, that we pledge ourselves to support the Federal and State Governments in constructive programs to reduce fire losses and restore and protect forests on such lands as are primarily suited therefor; to reduce our losses of agricultural soil by erosion; to control destructive floods; and to conserve our resources of water in accordance with their most beneficial uses.

BE IT FURTHER RESOLVED that we believe that the rebuilding of our natural resources and their conservation by such future wise use as will make their benefits permanent, are not only required by every consideration of the general welfare, but are a necessary part of any sound policy of national defense.

BE IT FURTHER RESOLVED that the National Executive Committee formulate a program to carry the Legion's policy into effect.

(Unanimously approved, September 22, 1938)

EXPERIMENTAL EQUIPMENT LABORATORY

By G. H. Lautz, Washington

The equipment laboratory established at Portland and financed mostly from road and trail funds by the Washington Office has successfully completed experiments on a number of pieces of equipment. These have been constructed along the lines decided upon by the laboratory and are now in operation. Types of road and trail equipment which have been handled by them, and are now being successfully operated, are:

Portable trail compressor, gearlift bulldozer, cablelift bulldozer, power takeoff for 5-ton Holt and similar tractors, portable rock bin, special motor mounting for rock crusher, portable pile driver, stationary hoist dragline unit, front end rock ripper, truck swing boom crane, convertible motor patrol-bulldozer blade, truck mounted gravel loader, detachable snow blade extension for standard bulldozer blades, elevator for loading rock into tractor-operated crusher, and power hoist for semi-trailer.

A small trail tractor bulldozer outfit and a bank sloper-loader have been constructed and are undergoing tests before being released.

Some pieces of equipment used on other than road and trail work were also constructed and are now being successfully operated. These include a snow tractor, fire equipment for mounting on Cletrac "35" & "55" tractors (a) convertible blade brush buster for fire line construction (b) fire pump (c) convertible bulldozer pump (d) overhead guards, the Deschutes fire trencher, a two-wheel trailer for use with small trail tractor, a two-horse trailer, a six-horse truck body, a stake body for fire truck, a radio trailer, stake truck covers, and a sled mounted snow blower.

Plans for the future provide for developing a rock picker and loader, a ditch cleaner and loader, a power chain saw for fire control and the developing of specifications and the testing of oil filters.

Since all Regions do a certain amount of experimental work, instructions have been issued that before any new projects are started, clearance must be received from the Washington Office. By serving as a clearing house on all experimental and research work on road and trail machinery, duplication of efforts will be eliminated. All work which will have Service-wide application will be financed from Washington Office funds and most of the projects will be assigned to the Portland Laboratory for experimenting.

Quarterly the laboratory will furnish each Region and the Washington Office a full description of the projects which have been completed during the last quarter, the projects under way or under test, and the projects proposed to be undertaken and the approximate date on which the work will be started.

THE EDITOR DISCOVERS

An emergency office of the Forest Service has been established in the Post Office Building, Boston, Massachusetts, to coordinate the work of the various Department Bureaus and other Federal agencies in protecting and salvaging the timber blown down by the September hurricane in the Northeast. Mr. Tinker is acting as Mr. Silcox's personal representative in assuming charge of the program and more than 40 men from the Washington Office and Regions 7, 8, and 9 have been detailed to New England to assist in the work.

Some 8,000 men assigned to CCC camps throughout New England are opening up trails, rebuilding telephone lines and fire towers, and doing other work necessary to restore the efficiency of the fire-fighting organizations. Plans are also under way for putting approximately 39,000 WPA men, under the supervision of State and Federal Forests, to work restoring fire protection to timbered areas of New England and eastern New York. The fire control jobs scheduled for completion by next fire season (March 1939) include the replacement of lookout towers and telephone lines, opening up of existing roads and fire lanes, clearing high hazard material from dwellings and villages where human life is most acutely endangered, disposal of inflammable, non-salvageable material within 50 feet of all roads, fire lanes, railroads, streams, lakes, or other areas of concentrated use or travel.

Experts estimate that the hurricane has left nearly four billion feet of fallen timber, of which between 60 percent and 75 percent is salvageable, if a workable plan is put into effect in time. About 30,000 small owners, who are normally dependent upon the sale of timber products for a substantial part of their annual cash income, are affected. Mr. Silcox, who has been designated coordinator of Department and other Federal efforts concerned with fire control and salvage of down timber, is seeking to make arrangements with the appropriate Government agencies for aid in financing salvage operations.

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Below is a summary of the accident reports for August covering the regular personnel of the Department. In listing the bureaus and offices it is not the intention to make a comparison of the individual accident frequency, for some carry on much more hazardous work than others.

	Average Number Employed	Total Man-Hours Worked	Number of Deaths	Number Disabling Injuries	Frequency per Million Man-Hours
Extension Service	8,107	1,610,940	-	4	2.48
Bur. of Animal Industry	5,504	1,011,407	-	13	12.85
Weather Bureau	1,743	287,225	--	4	13.93
Soil Conservation Ser.	18,000	2,851,162	2	38	14.03
Bur. of Public Roads	3,563	664,110	-	13	19.58
Fed. Crop Ins. Corp.	406	50,766	-	1	19.70
Bur. of Biological Sur.	2,759	438,820	-	11	25.07
Nat. Agr. Research Cen.	283	52,067	-	2	38.41
Forest Service	35,567	5,713,651	5	534	94.34
Totals	75,932	12,680,148	7	620	
Average					49.45

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An item appeared in the Service Bulletin of October 3 to the effect that the Forest Service may expend money from its appropriation for the suppression of fires on Taylor Grazing District lands when such fires threaten (a) National Forests or (b) unappropriated public forest lands. This statement was in conformity with an opinion of the Solicitor dated August 10 and was complete as far as the opinion went, but for the purpose of a full administrative understanding it should be added that Forest Service appropriations may also be expended to suppress fires on Taylor Grazing District lands when National Forests or unappropriated public forest lands are not threatened, provided reimbursement to our appropriation is to be made by the Interior Department under authority of the Act of June 30, 1932.

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According to the "Yale Forest School News", fifty-five students are registered in the Yale School of Forestry for the year 1938-39. This enrollment marks an increase of approximately 60 percent over the registration of the previous year, and has not been equaled or surpassed since 1911-12. Thirty-seven men will be candidates for the M. F. degree in June, 15 are members of the Junior class, and 3 are listed as special students.

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Net National Forest receipts for the period July 1, 1938, to September 30, 1938, totaled $892,794, a decrease of $307,897 compared to the same period last year. All Regions showed decreases.

Timber sales brought in $684,837, a decrease of $284,777; grazing receipts totaled $179,257, a decrease of $14,825; and Special Uses brought in $21,619, a decrease of $4,302.

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The fifth annual big game hunt on the Pisgah National Forest will be held from November 7 to December 3, according to a recent R-8 press release. The hunt will be limited to 1,600 sportsmen who will be permitted to hunt three days each. Bucks, does, and bear will be open to hunting by those qualifying for the hunt. Hunting will be permitted by the check-in and check-out system on the main hunt, which will be open to 1,200 hunters, while an additional 400 hunters will be assigned to the wilderness hunt where camp sites are erected in the remote areas.

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A copy of "Field Notes on Wildlife", which was distributed by Region 1 "in response to public expressions of interest in wildlife welfare" has been received in the Washington Office. "The idea of presenting these field notes is excellent," says Dr. Shantz, of the Division of Wildlife Management, "and they should stimulate activity in other Regions." He has one suggestion to make - that they be numbered and dated.

Dr. Shantz calls attention to the article "Our Upland Game Birds" by Robert F. Cooney, Lolo National Forest, which presents first-hand information of value in the management of these game birds and throws light on the effect of predators and of sheep grazing at nesting time. These two factors are much in the public mind at this time.

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SERVICE BULLETIN

CONTENTS CONFIDENTIAL

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>
> Theodore Roosevelt

Vol. XXII No. 23 Washington, D. C. November 14, 1938

POLICY TO GOVERN THE ORGANIZATION OF TIMBER SALVAGE WORK IN NEW ENGLAND

By E. W. Tinker, Washington

The following general policy will govern the organization of the timber salvage work in New England. Since the Administration will be operating on borrowed money, it will be necessary that it be organized on strictly business principles with the definite objective of repayment of the loan as well as a maximum amount to timber owners.

The job will include the purchase, measurement and storage of logs or manufacture of lumber or pulpwood and the sale of the products. The sale price must equal not only the purchase price but must pay the overhead. In planning the organization, a reasonable safety factor should be allowed in order to permit the balancing of expenditures with receipts. There must be maintained current records that will indicate, in a reasonably accurate fashion, the status of the Administration in this respect.

In order to initiate the work a nucleus of experienced Forest Service personnel is to be used under an agreement that the Administration will pay the expenses of these men and the Forest Service pay the salaries, provided they are retained on the job for only a relatively short period. This will necessitate the replacement of Forest Service men as rapidly as this can be done with people employed from outside sources. The recruiting of qualified men will be a vital issue. It seems probable that the situation can be met by the advancement of men from the scaler grade into executive positions as they indicate their ability. A scale of salaries, will, of necessity, have to be decided upon for check scalers, assistant State directors and other positions that will be involved if it becomes necessary that we go into the logging business or into the manufacture of lumber. In establishing these wage scales two factors should be borne in mind. First, the necessity of obtaining qualified men who will represent the Administration with credit, and secondly, the fact that the budget of the Administration must be balanced.

No one knows at this time what the reaction of timber owners in New England will be to selling logs to the Salvage Administration, and if owners indicate their ability and desire to dispose of their timber elsewhere, this must be quickly recognized and the overhead and administrative organization reduced accordingly. Under our present plans, it is expected that the organization will be expanded rather than reduced, but there is a real necessity for current recognition of the practical aspects of the undertaking.

Mr. Gerald D. Cook will serve as Acting Regional Administrator.

THROUGH THE PISGAH FAWN PLANT WITH FAWN NO. 73

By John Eller, Federal Game Warden in Charge

Fawn #73, hereafter known as "Herb" as it is the custom of the fawn plant employees to nickname the fawns, was caught at seven a.m., June 19, 1938, on Lookingglass Creek in a field just above the Lookingglass Falls. This is "Herb's" story:

"One morning my mother took me to the creek for my breakfast. She takes me to the creek because she knows that I am odorless and does not want my enemies to smell her milk. By feeding in the creek any spilt milk is washed away. After breakfast I found a nice warm spot in the sunlight near a log to take a nap. My mother left me to feed my twin, who was nearby. I was awakened from my nap by the calls of strange animals whom my mother called man. I stood up to run and was instantly captured by one of these strange creatures. Had I remained still he probably would not have found me, as my camouflaged coat protected me.

"The man held me with care, though I struggled hard, and carried me to the cellar of a white building known as a warden station. Here there were many strange odors such as I had never smelled before. I tried to run away and hit my head against a rock wall. I tried to jump over the wall but found the wall all around me. Finally, tired, hungry, and frightened, I slept.

"Sometime later two men came to get me and put me in a box which was in a strange roaring monster that traveled even faster than my mother can run through the forest. This roaring monster brought me to the fawn plant in the Pink Beds. Here I was taken into a building and examined carefully by two men, who recorded my age as five days old and my weight as eight pounds. A metal tag was put on my right ear - this signified that I was a buck. Does have the tag put on their left ear. My tag read, 'No. 73, Pisgah National Forest, 1938'. After filling out the card that would tell my life history from then on, the men named me 'Herb' after someone they called the boss. I was then taken to a small coop, which was located in a big enclosure called the isolation ward. Here I found many of my cousins in cages like mine. They all seemed contented and healthy. My cage seemed to be open on all sides, and I tried to escape; here I had my first experience with wire. I found that it was much stronger than I, and finally gave up the struggle for the time being.

"I was left alone for sometime and could see my cousins watching with expectation the brown building nearby and listening attentively to a rumbling noise that came from the door. I later found that this noise was caused by the steam used in sterilizing our dinner. Soon the men came out of the building carrying crates of bottles; to each bottle was attached a nipple. These men lifted the lids on the cages and my cousins would suck milk with gusto from the nippled bottles. A man came to my cage and I became frightened and tried to hide. I skinned my head on the wire and the man had to pick me up out of the cage and set me on the ground. Still holding me by my head, he put the nipple in my mouth and slowly worked the nipple back and forth forcing the warm milk down my throat. It did not taste as well as my mother's, seeming sweeter; however, I swallowed the milk, for by this time I was very hungry. The man talked to me and said I was a fine fawn and should have more than two ounces of milk but that it might not agree with me. I was put back in my cage, which was then covered with canvas, this made the cage warm and dry. During the night I was fed again. I know now that all the fawns are fed every six hours and that our diet is canned evaporated milk diluted with varying percentages of water according to the particular fawn.

"After I had been in the isolation ward six days I was moved into a run 20 feet by 15 feet and my diet was increased to four ounces of milk each feeding. This run had running water, a small shelter, and a great deal of herbs on which I could browse. The men in feeding would call me at the gate of the run and I would hasten up if I wasn't already at the gate waiting for them. While in the runway I was again weighed and was surprised to find that I weighed sixteen pounds. The men were also pleased and one said 'Nice work, Herb.'

"After I was in the run six days and responded readily at feeding time I was turned out in the big lot which had been planted with soy beans and red clover. There is also an apple orchard in this lot. Other fawns were put in this lot with me and we are all there now and having a fine time.

"Feeding has been increased by a diet of bran and crushed corn. I now receive a full quart of milk a day and no longer feed at night. In fact, I am enjoying soy beans and the other browse so much that I am losing my taste for milk. I was weighed recently and weigh 24 pounds. In two or three weeks I will lose my spotted coat and will have a solid brown winter coat. In a few weeks I will be sent to some other Preserve to help restock that area. Any of you man folks that care to see us fellows had better come now as I know we will all leave here soon."

THE SIHLWALD - ZURICH'S FAMOUS FOREST

By E. N. Munns, Washington

The earliest known document mentioning the famous Sihlwald, the Zurich community forest, dates back to July 21, 853. In this document, King Ludwig the German, a nephew of Charles the Great, gives his "Hof Zurich" to his daughter Hildegard of the Zurich convent. Since that time the forest was more or less in constant possession of Zurich.

Planned forest management was first introduced in 1314, when foresters were employed to protect the game and the forest. The "Richtebrief" (official regulation) for the years 1304 and 1417 indicates that the cut was given either to individual officials in lieu of salary, or to offices; the surplus was sold at reduced prices to the burgher of Zurich. By far the larger part of the product was sold for firewood and but little for construction. The forest served only the purpose of supplying the city. In 1567 the forest could no longer meet the demand, and the so-called "Bluscher" or "Schwyzer" trade came into existence, 3300 to 4500 cu. m. of wood were imported per annum. This trade lasted until 1826. A system of thinning and clear cutting was employed as early as the 16th century. The forest technical "etat" was established in the year 1697 and has never been radically changed. It was of great help in establishing a normal 90 year rotation. The only change during three centuries was in the period from 1734 to 1763, large forest areas having changed hands when servitude was abolished. In 1554 the forest on the left bank of Sihl was almost exclusively pine. In 1811, however, the same forest was 93 percent hardwood and only 7 percent conifer. This changed again, and in 1900 the forest was composed of 71 percent hardwood and 29 percent conifer. This is surprising as the forest on the right bank of the river has always remained conifer and also because the sites apparently are identical.

A radical change of forest management became necessary toward the end of the 19th century, when the demand for firewood decreased sharply in favor of high quality wood. At that time, fuelwood began to be replaced by gas and coal. To meet the increasing demand for better and cheaper wood it was necessary to lengthen the rotation from 90 to 110 years, cleaning and thinning were more frequent and intensive, at periods of 5, 7, or 10 years depending upon the age of the stands. Sawmills, store houses, and plants were built, either to increase the profit or to utilize such wood, for which there was little or no demand. New means of transportation were built to lower transportation costs.

"A WEST POINT FOR THE CIVIL SERVANT"

By Jno. D. Guthrie, Washington

I was interested in Theodore Krueger's "A U. S. Forest Academy" in the Bulletin of October 17. He is thinking along the same lines as Congressman Wesley E. Disney, Oklahoma, was when he introduced (on January 18, 1937) at the last session of Congress his H.R. 3141, "To Establish the National Academy of Public Affairs, Providing for a Board of Supervisors therefor, and Making an Appropriation for its Establishment and Maintenance." Through this bill, - to quote Mr. Disney, -" there would be established in Washington, where the Father of his Country visualized a great American university, a National Academy of Public Affairs. Its function would be the education of young Americans in diplomatic and administrative career service -- specialized civil servants. The school would be free of charge, coeducational, nonsectarian, and nonpartisan, operated by a board composed of certain Cabinet members: namely, the Secretaries of State, Treasury, Interior, Agriculture, and Labor."

The Disney Bill should interest the Forest Service and all other Federal agencies. It is not long, and for the benefit of those who have not seen it, it is quoted in full herewith:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby established in the District of Columbia a public institution to be known as the National Academy of Public Affairs.

"Sec. 2. The purpose and function of said Academy shall be the training and education of men and women for diplomatic and administrative service in national and international affairs, with a view to a career service on the part of its graduates, who shall have a civil-service status upon graduation with all rights under the retirement laws of the United States.

"Sec. 3. There is hereby created a Board of Supervisors of said institution, composed of the Secretaries of State, Treasury, Interior, Commerce, Agriculture, and Labor, said Secretaries to be ex-officio members of the Board of Supervisors without additional compensation for their services.

"Sec. 4. Said Board of Supervisors shall be a body corporate with corporate rights and functions for the purposes of this Act. It shall provide a site; appoint officers, a faculty, teachers, and members; fix the duties and compensation thereof, and do all the other things necessary to establish and maintain said institution.

"Sec. 5. The said Board of Supervisors shall be required to keep and maintain said institution in all respects on a strictly nonsectarian and nonpartisan basis.

"Sec. 6. Students of said institution, selected as hereinafter provided for, shall have the right of membership in said institution as students free of charge; and the Board shall make provision for their living and maintenance. No student shall be admitted under the age of seventeen or over the age of twenty-five, under proper requirements as to physical fitness; and each shall have had at least two years of resident college work prior to admission. The institution shall be coeducational. The courses of study, eligibility, and requirements of applicants for admission and the conduct of the Academy shall be prescribed by the Board of Supervisors. Each student shall on entrance take an oath to support the Constitution of the United States. Each congressional district shall have one student in the Academy, appointed by the Congressman, and each State shall have two students appointed by the Senators. The President may appoint fifty at large and from the District of Columbia and Puerto Rico. The system of selection shall conform as near as may be to the present plan of selection of students to the United States Military and Naval Academies; said students shall be residents of the States or districts from which they shall be chosen.

"Sec. 7. There is hereby authorized to be appropriated from the Treasury of the United States for the purposes of the organization and expenses of the said institution and its initial maintenance, including the purchase of site and the erection of buildings therefor in the District of Columbia, the sum of $5,000,000. There is also authorized to be appropriated such sums as may be necessary for the annual maintenance of said institution.

"Sec. 8. The Board of Supervisors shall make an annual report to the President of the United States."

GOOD LAND TITLE WORK

By L. S. Murphy, Washington

The Forest Service in its land acquisition work is greatly perplexed by the amount of time and money consumed by the title attorneys and their satellites. But do we realize what they are up against? I doubt it.

The following is quoted from an article on "Systems of Land Title Examination: An Appraisal" by the General Counsel and Assistant to the General Counsel, Federal Home Loan Bank Board in "The Journal of Land and Public Utility Economics," May 1938: 133-1460.

"To illustrate the period of time required to be covered in the title search and the exasperating details involved in proving title, one lawyer in New Orleans, who had been advised by a department of the Federal Government that his title did not 'go back far enough,' wrote of his title search as follows:

"My abstract shows the title from the United States to the present time; the United States got it from France as part of the Louisiana Purchase; France got it from Spain by right of conquest; Spain got it by right of discovery, having financed the venture of Mr. Columbus; the King of Spain got his authority from the Pope of Rome; the Pope got his authority by being a descendent in the succession of Saint Peter; Saint Peter got his authority from God; and God created the earth.'

"This is, of course, an exaggeration of the period of time required to be covered in title search and the work involved in title examination. Nevertheless, it illustrates the intricacies and absurdities involved."

THE LAW OF THE JUNGLE

"The Lion and the Lamb" will sometime lie down together, but this Utopian condition has not arrived for the bear and deer on the Tongass National Forest, Alaska.

One evening last July District Ranger C. M. Archbold had the opportunity of witnessing a wilderness tragedy which is seldom seen by outdoor men. This was the killing of a Sitkan buck deer (four-point) by a black bear in Karta River, a famous rainbow trout stream near Ketchikan. The bear was astride its victim, keeping its head under water through sheer weight, twisting and clawing with all four feet. Archbold drove the bear away from the kill with rocks. It retreated in the woods after some growling and huffing, and one or two starts back into the water.

While rarely viewing the act, woodsmen find frequent evidence of these predations in Alaska. Black bears are very numerous on the Tongass Forest, and the three large islands on the north end have perhaps the heaviest concentration of Alaska big brown bears in the Territory. There are many deer here also. Evidently the deer successfully side-step many of the long leaps and vicious paw swipes of bear on the hunt. - Region 10

NEBRASKA FOREST FIELD DAY

By C. A. Nater, Nebraska

Back in 1910, the First Annual Forest and Field Day Picnic of the Nebraska National Forest was held at Bessey Nursery with a small gathering of guests present. On Sunday, September 18, of this year the twenty-ninth staging of this same event attracted a total of 1,221 guests to the Forest from 39 counties of the State, the largest attendance yet to be taken care of at this attraction, bettering the 1937 record breaking crowd of 1,192 persons.

It must be remembered that the Nebraska is located in the sparsely settled sandhill region of the State and that probably a majority of the visitors to the Forest travel more than 200 miles to reach it. Most of the people traveling long distances to the picnic are leaders in their respective communities and we have proof of recent years that they are going back home after each of these annual picnics and spreading the gospel of tree planting to their fellow Nebraskans. For instance, there were 71 4-H Forestry Clubs in the State in 1937 and now there are 234 such clubs. Of late years, the picnic has been a cooperative undertaking of the Nebraska NationalForest and the State Extension Service.

Supervisor Dayharsh welcomed the visitors to the Forest and asked that they continue to plant trees even though the drought of recent years has laid low some of the State's finest specimens. The afternoon's address was delivered by James E. Lawrence, influential editor of the Lincoln Star and a professor at the University of Nebraska. Col. Peck pictured to the assembled guests what the Nebraska looked like 35 years ago when he first came to it as a tenderfoot in the Service and brought to their attention very forcibly what has been done in one lone generation. As has been the custom during the past several years, the tree planting demonstration was made by the State championship forestry demonstrating team. This year's team consisted of two girls from Richardson County, the furthermost point in the State from the Forest.

The morning hours preceding the picnic lunch at Bessey Picnic Ground were devoted to conducted tours of Bessey Nursery. CCC boys were placed at various stations throughout the nursery to show and explain to the guests a considerable number of the actual nursery operations. Following the afternoon's speaking, a tour was made of a portion of the Bessey District plantations, where many of the visitors saw for the first time what successful progress planted and uncultivated trees have made in the sandhill region of Nebraska.

THE EDITOR DISCOVERS

A program for salvaging down timber in New England was recently approved by the President and the Reconstruction Finance Corporation. Subject to approval of legal and other details, the program calls for immediate loans by the Disaster Loan Corporation to be made available to the Surplus Commodities Corporation. Mr. Silcox, acting on behalf of the latter corporation but reporting directly to Secretary Wallace, will have charge of the project. In brief, the plan involves:

1. Establishing log prices by certain grades.

2. Cash payments of not more than 80 percent of these established prices for logs delivered to designated points.

3. Contracts to participating log owners for additional payments to be made if, as, and when administrative and other costs have been met and R. F. C. loans are repaid.

4. Establishing such stabilization measures as will prevent demoralization of market prices for logs and other forest products.

The plan was developed after conferences with New England State Governors, representatives of the Farm Bureau Federation, National Grange, timberland owners, forest industries, and others. Mr. Silcox attended the conference between Mr. Jesse Jones, Chairman of the Reconstruction Finance Corporation, and President Roosevelt.

Mr. Tinker in this issue of the Bulletin tells of the policy to govern the organization of timber salvage work in New England.

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The Department has notified the Forest Service that according to Departmental Circular No. 171, dated October 14, 1938, from the United States Civil Service Commission:

"The Commission has given careful consideration to Title I, of the Work Relief and Public Works Appropriation Act of 1938, and has reached the conclusion that employees appointed under this Title will be included in the classified service as of February 1, 1939, by operation of Executive Order No. 7916, dated June 24, 1938."

This will mean that all WPA administrative employees who were on the rolls June 24, the date of the Executive Order, and have given six months' satisfactory service will be eligible for blanketing into the Civil Service upon passing a suitable noncompetitive examination prescribed by the Civil Service Commission.

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A joint agreement was recently entered into between the Forest Service and the National Park Service to promote the "Appalachian Trailway" as a distinct type of recreational area devoted particularly to hiking and camping. By the terms of the joint agreement a protective strip will be established along 546 miles of the Appalachian Trail traversing eight National Forests under jurisdiction of the Forest Service and 158 miles in two National Parks administered by the Park Service. Location and marking of the entire route, which extends for 2,050 miles along the broken crestline of the Appalachian Range from Mount Katahdin in Maine to Mount Oglethorpe in Georgia, was completed in 1937 after many years of effort by the eighty outdoor organizations affiliated with the Appalachian Trail Conference.

The agreement provides for maintenance of a zone at least two miles wide along portions of the trail passing through National Forests and National Parks, except where it descends into main valleys, within which zone there will be no new paralleling routes for the passage of motorized transportation or other incompatible developments. Wherever desirable, those portions of the through trail which are now located within one mile of paralleling motor roads will be relocated as funds permit.

Substantial progress has already been made toward the ultimate objective of a complete chain of campsites and shelter facilities, located not more than a comfortable day's hike apart, along portions of the Appalachian Trail passing through areas under their jurisdiction.

The original proposal of a continuous marked footpath through the mountain wilderness of the eastern Atlantic States is credited to Benton MacKaye of the Northeastern Forest Experiment Station, who offered the suggestion in 1921. The need for establishing a natural trail zone, similar to that now authorized, to insulate the through trail from distracting influences was advanced by a National Park Service representative at the 1937 annual meeting of the Appalachian Trail Conference.

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An analysis of the calendar of reports required by the Washington Office shows that 674, or 82 percent of the total, are the results of demands by Governmental agencies other than the Forest Service. It is appreciated, however, that the 150 reports required by the WO is a substantial number when measured in terms of time required for compilation on a Service-wide basis, and every effort possible will be made not only to reduce the number of reports required by non-Forest Service agencies but also by the WO.

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The Superintendent of Documents reports that he has sold 1,500 copies of the Range Plant Handbook and is going to press with a new edition. He apparently considers it such a "best seller" that he is going to raise the price to $3.00.

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SERVICE BULLETIN

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>
> Theodore Roosevelt

Vol. XXII No. 24 Washington, D. C. November 28, 1938

REGIONAL FORESTER RUTLEDGE APPOINTED DIRECTOR OF DIVISION OF GRAZING, INTERIOR

Appointment of Richard H. Rutledge to be Director of the Division of Grazing was announced on November 10 by Secretary of the Interior Harold L. Ickes, following the resignation of Farrington R. Carpenter, of Hayden, Colorado, who had expressed a desire to retire to private life. In announcing the appointment, the Department of the Interior said:

"Secretary Ickes commended the establishment and development of the Division of Grazing in the past four years when the difficult task of putting a new conservation measure into operation was accomplished. Established policies will be continued. Mr. Carpenter was the first director of the service. He took office following enactment of the Taylor Grazing Act in June 1934 and at that time agreed to serve for one year.

"Selection of Mr. Rutledge brings to the position the services of one of the outstanding authorities on grazing problems in the Nation. Residing in the grazing States of Idaho, Montana, and Utah since childhood, the new Director has a knowledge of general social and economic conditions and practices in the territory unsurpassed by few of the public figures in that section. His detailed knowledge of the range, timber and other resources and their relation to the communities with their import has been gained through his long residence in those States and the close association he has enjoyed with citizens in the livestock industry. For the past 18 years, Mr. Rutledge has been in charge of the Intermountain Region of the Forest Service, with headquarters in Ogden, Utah."

"Charged by the Taylor Act with conservation of natural resources and stabilizations of the livestock industry on approximately 120,000,000 acres of Federal range land, the Division of Grazing maintains supervision over the grazing of more than 10,000,000 head of cattle, sheep and horses in 50 Federal grazing districts in Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah and Wyoming.

"In addition to its work in connection with the issuance of licenses for grazing privileges on the Federal range, the Division of Grazing is engaged in carrying out an extensive program for range improvements, involving construction of trails, development of watering facilities, and eradication of rodent pests and poisonous weeds from the stock grazing areas."

According to the R-4 "Daily News" of November 10, Mr. Rutledge made the following comments regarding his new assignment:

"The matter has been under consideration for some time and has been the subject of several conferences between Chief Silcox and Secretary Ickes. I, also, have had several conferences with Secretary Ickes and Mr. Silcox. I also understand that Secretary Wallace has approved the idea. The job did not come from my choosing, but the men mentioned above convinced me that I should accept as a matter of public service and do my best to work the Public Domain questions out to the best interests of the resources, of the livestock industry, and of the public.

"It is with the greatest regret that I sever my connections, after 33 years, with the Forest Service, but if I can render a service to the general public, I shall gladly place any personal preferences to one side and endeavor to do the job. In taking over the Public Domain work, I am not fooling myself as to the problems ahead, but feel that with the willing help of the stockmen and of the people of the West that has been so evident during my Forest Service work, any problem arising can properly be solved. I am personally acquainted with many of the fine people in the Division of Grazing, know something of the good work they have already done in starting the administration of the Public Domain, and that we can work together in accomplishing the desired results.

"My plans now are to complete a few matters in the Forest Service and go to Washington in a week or two and take over the work. I shall probably spend about a month getting acquainted with the Washington end of the organization and then spend several months in the West on field matters. The work will be largely in the field with but limited stays in Washington. Mrs. Rutledge will probably not go East until next spring."

NEW ENGLAND HURRICANE BLOWS FUEL TYPES TO FOREFRONT

By H. T. Gisborne, Northern Rocky Mountain Forest & Range
Expt. Sta.

News from New England concerning the emergency measures being taken, first to reduce the increased fire danger resulting from the blow-down, and, second, to produce a new danger meter for use by local fire wardens, focuses attention upon the real difference between fuel type and silvical or timber type, in planning fire control for any area or region.

Timber type or cover type undoubtedly can be used as an index of two factors of fire danger--rate of spread and resistance to control so long as fuel conditions within the type are relatively uniform. But the hardwood and coniferous types within the hurricane belt have now been changed so that from a fire control standpoint they are no longer like the hardwood and coniferous types outside that belt. The Governor of New Hampshire closes that State to public entry not because the timber types have changed but because the ease of ignition has been increased within their timber types. Forty thousand WPA's are put to work restoring fire protection facilities, building fire lines, etc., not because the silvical types have as yet been altered but obviously because the potential rate of spread of fire and the resistance to control have both been radically increased. A new fire danger meter is needed not because the timber or silvical types are or soon will be different from what they were before the blow-down, but, solely because probable fire danger, comprising the temporary factors of weather applied to the fuels that can burn, has now been made much greater than ever before. Fuel type is obviously THE factor now of paramount importance.

Before the blow-down there probably were many small areas in as bad condition then as the average is now. If the whole area now needs much more fire prevention and facilities for detection and suppression, the small areas undoubtedly warranted similar differentiation before the blow. Outside the hurricane belt, in Maine, New York, Florida, or Montana the same principle would seem to hold true.

BARBED WIRE

By John H. Hatton, Washington

I saw in the "funnies" where Col. Bungle got tangled up trying to negotiate a four-strand barbed-wire fence. He finally reported to "Joe" practically stitchless and variously exposed. But, strange to me, he was apparently physically unimpaired, though mentally quite upset.

Barbed wire and me are practically synonomous in more ways than one. I personally know that I couldn't have made those successive strips a la Bungle and emerged with only tatters and exposed anatomical surfaces. The close acquaintance with what we grew up to denominate the cruelest and most vicious of inventions never left me and my brothers just partly clothed. Our injuries were a lot deeper than that. They even reached to the "brain". Also, many of our finest colts and work horses similarly attested to unequal struggles, to their lasting disfigurement or disablement. Barbed wire has always had a special penchant for horses' front feet. Old-time doctors and kitchen surgery never had anything on us as barnyard practitioners.

But the march of time, or expediency--or what you will-heals many wounds and scars and disfigured memories. We became proficient barbed-wire fence builders on a large scale, recording at least a hundred miles on various "pre-depression" properties. For one project, we bought a carload at $2.57 per 80-rod spool and two carloads of Northwest cedar posts at $13.41 per hundred posts. We grew to think very well of 2-point Glidden, galvanized. Let the war fronts rate it with gas and aerial bombs and cannon and machine guns. It will hold its place in such eventualities.

Barbed wire was born at DeKalb, Illinois, a little matter of only 64 years ago. I quote from J. Frank Dobie's "A Vaquero of the Brush Country":

> "In November, 1874, J. F. Glidden of DeKalb, Illinois, patented his revolutionizing product. To manufacture the product he formed a partnership with I. L. Ellwood, also of DeKalb. Then Glidden and Ellwood engaged Henry B. Sanborn, together with a man named Warner, 'to sell' barbed wire to the public. Sanborn reached Texas in 1875. At first he met violent prejudice against his ware. Shanghai Pierce, for instance, king of cattle kings on the coast, voiced popular sentiment when he declared that cattle and horses would cut themselves to pieces on the barbs and all die of screw worms. The story of the fight against the screw worms on the ranges of low altitude has never been told; it is a gruesome story. Sanborn, however, sold some of the wire to merchants in North Texas. Coleman, Mathis, and Fulton, who had already fenced in an immense pasture with smooth wire, bought a carload of it. By 1880 fencing was the order of the day--and in many places wire-cutting was the disorder, sharp but short-lived."

Last year, through the American Consulate General and the Secretary of State, we had an inquiry from the Director-General of Hygiene of a South American Province, who wanted to know if there existed in the United States legislation prohibiting the use of barbed wire for enclosing or separating rural properties. It seems that the extensive damage caused annually to the hide industry from certain types of fencing was under consideration.

Under present conditions in our own country barbed-wire fencing has come to be considered an important and necessary part of the livestock industry, although many lives were lost in early fence controversies. Local public sympathy was with the "wire-cutters" in most places at first, and grand juries would not indict them nor would petit juries convict them. However, the folly and uselessness of fence warfare and fighting against inevitable progress in the country's settlement finally gained the ascendancy. People who had fought fencing began to look for lands they could control and fence themselves. Public opinion turned against fence-cutting, and legislation made it a more serious offense than it had been in the beginning. Later generations of livestock under more restricted ranges have learned better to avoid injurious contacts with barbed wire as a general rule. It is told of some of their ancestors that the paths that were made trailing along barbed-wire fences would be followed for miles after the wires and posts were removed and absolutely no fence obstruction left.

In thickly settled agricultural sections according to the class of stock to be confined, woven and smooth wires sometimes with barbed wire in combination predominated. But barbed wire like many other innovations and inventions has chiseled its name on the milestones of fencing progress. "Fence-cutters" and "fence-riders" have become history and story.

FIRST IMPRESSIONS IMPORTANT

By C. F. Evans, R. 8

Within the past week I have had two experiences which will serve as the basis for a little sermon (the Editor of the "Dixie Ranger" asked me to write an editorial).

Experience No. 1. I called at an office to discuss a matter on which M. had requested some assistance from the Forest Service. Upon entering the outer room where several people were working I glanced about for a lead, found none, and began drifting toward the desk of the least busy appearing employee. A man passed near me and I hailed him, inquiring the whereabouts of M. With a jerk of the thumb my informant indicated a corner room, saying, "He's in there." The room proved to be large, dingy, and cluttered with untidy desks. At one desk sat a young lady, and at another was the man I supposed to be M. Neither paid the slightest attention to me, so I walked over to M.'s desk. He was making notes on a sheet of paper and continued to do so for several moments (it seemed longer) while I stood waiting. Finally he looked up and said, "What can I do for you?" This question always seems to say, "I am a very busy and important person, but if you will make it snappy I may give you a minute or two."

Experience No. 2. I phoned W.'s office saying I would like to talk with him sometime during the forenoon. His secretary told me she was sure W. would be glad to see me. A pleasant young lady met me in the outer office, and when I gave her my name she said, "Mr. W. is expecting you. Go on up." As I left her I noticed that she picked up the telephone. As I got off the elevator W.'s secretary left her desk, greeted me by name, and escorted me into W.'s office. She had been tipped off by the girl who met me downstairs.

The odd part of the contrast between the two experiences is that I am of no consequence to W. He is the head of a very large and successful business, and I was coming (officially) to ask him to do something. On the other hand, M. is in a public position and I was calling on him because he had asked the Service for assistance. Of course it would not matter who called on either of these men. The effect on the visitor would be the same as in my case. I have been told that W.'s entire organization--several hundred people in the home office, with many branch offices--is trained in the kind of public relations work I noted. If a field office knows a customer is to visit the home office a careful description of the customer is sent in with probable date of arrival. Naturally he is immensely pleased--and somewhat mystified--when the lady at the entrance desk greets him by name. I think this kind of treatment of strangers is worth far more than the effort it requires.

There would be no point in writing about this if all our offices have a system that insures courteous and friendly treatment to visitors. Naturally I mean all visitors, and particularly people looking for jobs. Even agents and pedlers who ignore the "No Soliciting" signs should be shooed out in a tactful way. I doubt that our system generally is very good. The Regional Office cannot be held up as a model in this respect.

First impressions are lasting, and people get first impressions not from the Boss but from the person nearest the outer door. A friendly greeting that makes you feel that you are really welcome often makes you forget what you didn't get what you came for.

Can't we get more personality and friendliness at the contact points? (From the "Dixie Ranger")

MORE ABOUT A FOREST ACADEMY

By J. H. Sieker, Washington

T. K. Krueger's excellent article in the October 17 issue of the Service Bulletin is timely and worthy of serious consideration. His proposed academy could do much to spare men and the Forest Service the time and expense of weeding out misfits.

It could do even more in judging men on the basis of four years' actual observation, rather than on one examination. Besides weeding out men temperamentally and physically unfit despite their mental alertness, it could prevent the dropping of men admirably fitted for forest work who for some strange reason cannot pass the junior forester examination. Graduation from the academy should automatically make a man eligible for probationary appointment. Appointment would thus be dependent upon four years' work and the judgment of qualified instructors rather than being dependent upon the impersonal grading of one examination.

The value of such a procedure was vividly demonstrated to me between 1933 and 1936. During this period I had the opportunity to observe and work with about 75 forest school graduates who came to us as foremen in CCC camps. Most of these men arrived right after graduation--some had failed in their first attempt at the J. F.; others had not yet taken it. During that time ten men demonstrated in actual work their leadership, common sense and executive ability and were easily "standouts" as forest officer material. Five of these were promoted to the job of project superintendent and justified that promotion by doing a fine job of camp management.

The results of the first J. F. examination taken by most of the men on the forest were amazing and worthy of much thought. Only two of the really outstanding men passed; the five superintendents failed, but several foremen who were rated as "just fair" passed with high grades.

You may question the judgment of the forest officer who promoted the five superintendents, but remember these men were selected by a supervisor with years of eminently successful forest administration behind him and his choice was unanimously seconded by his two assistants, who were also experienced men, and the work of the superintendents was excellent, which to my mind is the proof of the pudding.

The question naturally arises: What can be done to make the J. F. examination a fairer test of a man's qualifications as a forest officer rather than merely a test of his ability to pass an academic examination with no provision for such other qualifications as personality, leadership and executive ability?

The academy idea is one way to overcome this problem--a more practical and less academic examination would be another.

OUR OWN ONE-THIRD

By Jno. D. Guthrie, Washington

Headley's "Plight of the Short-Term Employee" will strike a responsive chord in the breasts of many of our field force. It struck me.

Now that we have shed a few tears over the ill-fed, ill-housed, and ill-paid lumberjack,-with his grapefruit for breakfast, his heavy dinners, his steel cots, mattresses and sheets (laundered by the company), his comfortable and clean quarters, his radio, etc., let everybody read Stewart Holbrook's "Holy Old Mackinaw," pp. 251-257, for details of the 1938 lumberjack, the horrible modern details about red geraniums at windows, diapers on clotheslines, flush toilets in bunk houses, and loggers golf tournaments.

Having done that, maybe it would be a good idea to worry a little about the men we employ, rather than the lumberjacks who after all aren't on our payroll. Maybe it would be well to try to put our own house in order before trying to tell the timber purchaser or lumberman about the mote in his eye.

The short-term man, the forest guard of earlier days, has served the Forest Service pretty faithfully for many years. He was a mighty important part of the fire organization on many a National Forest. He was in many ways the key man on the fire chart. Whether on a lookout tower, on patrol, or stationed at some cabin back beyond, he was on the first line of defense.

The forest or fire guards used to be a source of recruitment for forest rangers, and many present-day rangers started that way; now we pick our rangers from the "collitch boys" on the Junior Forester list. Many forestry students did their stint at the forest guard job but that was for them only a stepping stone to something higher and better.

The forest guard depended on the Forest Service for a summer's job; he came back year after year, sometimes until he was too old and had to be told that he couldn't be used any more. If a fire was controlled or put out, and if the Forest had a good season, the Ranger and the Supervisor got the credit, not the forest guard. He wasn't known around the Washington Office, he didn't figure much in promotion lists, and his name didn't appear much in fire news,- unless he got caught in a fire. I use the past tense "was" because I am talking about the days before the CCC boys came along and shoved a lot of fire guards out of a job.

Headley would dramatize the forest guard. He needs to be dramatized and advertised in these days, if we are to help him again back to his place in our field organization. But before we become dramatic, let's be practical for a moment. First shouldn't we begin to plan to build up again the local fire cooperation spirit on the Forests? I know that in some cases the really effective local fire cooperators of the pre-1933 days have about faded out of the picture, because we haven't been contacting and using them since the Triple C's were always available and willing - and because it saved us money. We may not always be able to call on the CCC for first-line work; it may be verboten some day; or they may go out, or they may have military drill in the camps and no time to fight forest fires except in real emergencies.

It might be well to rediscover the short-term employee, the forest guard, the fire guard, and see if we can't find a place for him again in the Forest organization.

MEMBERS OF REGION 7 AND OTHERS TRAVELING IN NEW HAMPSHIRE BEWARE!

By M. R. Kennedy, Washington

In response to our request concerning their new uniform fabric, the New Hampshire State Police informs us it will be on the lookout for anyone wearing clothing made of elastique material similar to that used in the breeches and trousers of our standard uniform. It seems that New Hampshire police have also adopted the heather mixture elastique for the police uniform. The police went several steps farther and in 1937 had the State Legislature pass a law making the manufacture and use of duplicate material within the confines of the State of New Hampshire a Felony!

This is no sales talk for elastique, the use of which by Forest Officers is limited to breeches and trousers, and we are not asking anyone to desist from wearing elastique in New Hampshire until our Uniform Committee makes peace with the police. Just to put you wise, the fabric was adopted in 1935 by our Uniform Committee, manufactured and worn in 1936; so that's your argument if you get picked up.

PROGRESS OF TENNESSEE VALLEY AUTHORITY IN EROSION CONTROL

The first major problem confronting the Authority in 1933-34 was erosion control through engineering and reforestation methods on private lands in the Norris Reservoir area. At that time the department cooperated only with the numerous CCC camps assigned to its use within the Valley area. Due to an increase in number of CCC camps and cooperation with State Extension Services, and greater interest in erosion control, reforestation has increased steadily from an initial planting of about two and one-half million trees.

In 1935-36 interest on the part of individual property owners to undertake erosion control on their property with their own labor increased substantially. At that time cooperation with the State Extension Services on this type of control was started. It has expanded rapidly, and for 1938-39 a planting program involving nearly four million trees is anticipated.

During 1935-36 a substantial planting program was undertaken on TVA reservoir land then available for planting. At first two reservoirs, namely, Norris and Wheeler, were acquired and needed attention. Each year thereafter additional reservoirs have been established until planting plans for the present year include five reservoir areas and involve planting to the extent of approximately nine million trees.

To June 30, 1938, a grand total of 61,782,237 trees had been planted.

The engineering phase or the preparatory work, as it is commonly called, began in 1933-34 and developed with reforestation as a dual part of the Authority's program of erosion control. During the first two-year period (1933-35) the engineering accomplishments, like reforestation, were confined largely to the relatively few counties which comprise the watershed of the Clinch and Powell Rivers. It has expanded since then from that region until it now includes five States and sixty counties within the Valley. Engineering control measures are an important part of the department's efforts to encourage landowners, through the Extension Services, to do erosion control with their own resources.

To June 30, 1938, the number of engineering projects carried out totaled 5,548 on 826,087 acres of land. (From TVA "Forest Log" for October)

FOR DISTINGUISHED SERVICE FIGHTING FOREST FIRES

(Editorial in "American Forests" for September 1938)

Thousands of men annually risk their lives that forests may be saved from fire.

This is not new. This is not the first year, nor will it be the last when men have fought to save the forests. In 1937, the Nation learned how Ranger Alfred G. Clayton and fourteen others met death as the flames turned against them in Wyoming's Blackwater Canyon. Only the quick thinking and stalwart courage of Ranger Urban J. Post and his fellows prevented a much heavier toll of death.

Another August back in 1910 wind and weather combined to create explosive conditions in the western forests and seventy-four forest fire fighters were found lying in their ashes. That was the year when Forest Ranger E. C. Pulaski marshaled forty-five men into an abandoned mine tunnel and held them at the point of a revolver until the roaring flames had consumed the surrounding forests.

These are only two of the many examples of heroism displayed in fighting forest fires of the past. Ranger Clayton gave his life in the struggle and a mountain was named for him. Ranger Pulaski, suffering burns, bruises and temporary blindness, escaped. After weeks recuperating in the hospital and at home, he continued his work -- and a fire-fighting tool was named for him.

Letters of commendation were written by high Government officials expressing appreciation for the services of these men and others like them -- justly deserved evidence of the human qualities of a great organization.

Daily other guardians of our forests are facing similar emergencies. That their sacrifices deserve public recognition has frequently been suggested. Recently under the leadership of The American Forestry Association a plan for the creation of an appropriate bronze medal for heroism in fighting forest fires has begun to take form.

The Society of American Foresters, the Pack Forestry Foundation, the Association of State Foresters, and the National Lumber Manufacturers Association have been invitied to form a Board or Committee of Award to pass on evidence or proof of individuals who may be recommended for the award. Any individual or citizen who has displayed unusual qualities of courage, judgment, quick thinking and coolness under extreme emergency conditions of forest fire fighting -- who has saved human lives as well as those of trees -- would be eligible for consideration.

Because the brunt of fighting forest fires falls upon the men in responsible agencies of Federal and State governments, the employees of the Forest Service, the State forest services and conservation departments, the CCC, and the National Park Service and the State park services, the Indian Service and the several other agencies organized for forest fire control, they naturally come first to mind. Men or women in other walks of life, however, may rise to acts of heroism under the stress of forest fire emergencies.

To any of them, or to their families, evidence of public recognition of heroic leadership would be an honor that would dignify their personal sacrifices. It is hoped that this effort to recognize individual heroism in fighting forest fires may have the active participation of all who love the forests and honor the men who serve them. Because it is a tribute to those who have striven unselfishly and heroically to protect a resource belonging to all our people, the medal should receive widespread financial as well as moral support.

TRENCH-TERRACE SYSTEM IS SUCCESS

"Experimental trench-terraces installed the past few years on Davis county mountains have proved successful and similar terraces are being installed on numerous other eroded upland areas in Utah and Idaho, Associate Regional Forester C. N. Woods said today.

"Two hundred fifty CCC workers are now building terraces on the following areas, he said.

"Manti National Forest of Utah - at head of Ephraim canyon and Pleasant creek; La Sal National Forest of Utah - on the upper Pack creek east of Moab and on Indian creek west of Monticello; Cache National Forest - in Franklin basin on the Logan river watershed a few miles north of Tony grove, and on the addition to the Pocatello division, on Bell Marsh creek; Wasatch National Forest of Utah - additional terraces are being installed in Farmington canyon.

"'In most cases the terracing will both tend to prevent floods to farms and towns, and increase the forage crops and the carrying capacities of the ranges,' said Woods. 'The Davis county method can be applied to dozens of watersheds in this region.

"'In every case of terracing we are also sowing grass or planting trees and shrubs.

"'Preparations are being made to enlarge the planting and reseeding program, and it is expected many depleted forest ranges will be reseeded next spring where it is economically justified'" - STANDARD, Ogden, Utah, October 15

THE EDITOR DISCOVERS

The following prices have been announced for northern white pine timber salvaged in the New England hurricane area, 80 percent of which will be advanced when logs are delivered at ponds, lakes, or other concentration points:

$18 per thousand board feet for No. 1 clear logs 12 to 16 inches in diameter and 12 to 16 feet long or defective logs 17 inches or more in diameter and 10 to 16 feet long.

$14 per thousand for No. 2 clear logs from 9 to 16 inches in diameter and from 10 to 16 feet long or for defective logs 17 inches or more in diameter and 8 to 16 feet long.

$12 per thousand for No. 3 clear logs 6 to 8 inches in diameter and 10 to 16 feet long or for defective logs of 8 to 13 inches in diameter and 10 to 16 feet long.

Eighty percent of the above prices will hold until June 1, 1939, at which time they will be subject to reconsideration.

Logs will be scaled under supervision of representatives of the Forest Service when delivered and advances of 80 percent of the value will be made by the Northeast Timber Salvage Administration (Federal Surplus Commodities Corporation), within a week after the logs arrive at the ponds, lakes, or other designated points. There will be a Timber Salvage Administration for each State. Further distribution of payments for the logs will be made upon completion of the operation on the basis of a pro rata share to each log owner of the proceeds of the operation after repayment of the loan with interest at three percent and necessary administrative costs have been met. Prices on hardwoods and pulpwood will be announced later.

The Government's offer to buy the salvaged logs is made possible by loans from the Disaster Loan Corporation of the Reconstruction Finance Corporation to the Federal Surplus Commodities Corporation.

Approximately 13,500,000 acres of the area of the Tennessee Valley is classed as forest land, and an additional one million acres are reverting to forest growth, according to the TVA "Forest Log". Of the total forest area, less than 3,000,000 acres are receiving adequate protection at the present time. Approximately 5,000,000 acres are receiving no organized protection whatsoever, and the protection now provided for the remaining 6,500,000 acres needs to be increased considerably.

The award of certificates of valor to two CCC enrollees, Joseph Koch of 447 Queen Anne Court, San Antonio, Texas, and Larry D. Smith of Dresden, Tennessee, was recently announced by Director Fechner. At the present time, Koch is an enrollee with CCC company 1803 located in a forest camp at Ratcliff, Texas, Smith is an assistant leader of Company 1452, at the forest camp at Cascade Locks, Oregon. Both awards were given for saving persons from drowning. Twenty-four CCC boys have previously been honored with these awards which are given for acts of heroism or exceptionally courageous action beyond the call of duty.

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SERVICE BULLETIN

VOL. XXII - NO. 25 DECEMBER 12, 1938

Seasons Greetings!

GREETINGS

My greeting last Christmas contained a challenge to all of us in the Forest Service to make forests serve people socially as well as economically. In viewing accomplishments of the year, and recent opportunities, I am hopeful that this goal is nearer and more distinct than it has been. It should be, for as you know human needs form the keynote of the President's forest message to the Congress; a message that calls attention to our forest problem and to the need for a policy and plan of action with respect to it.

Through this message - as in other ways - the President has created a real opportunity. As a Nation, and if care and forethought and planning are used, we may never need more forest land than we now have but we do need more and better forests. It is up to us as foresters to grow them. But a more solemn obligation is to translate them into more jobs and steadier ones, into investment in security, and into a permanent and a more prosperous civilization.

The recent hurricane in New England was a terrible disaster. It did incalculable damage to forests there, but it also gave us as foresters an unparalleled opportunity to help a people stricken by adversity. I am proud of the fact that the Forest Service has recognized and embraced those opportunities. I am confident that with the loyal support and helpful cooperation our organization has always given in the past the Forest Service will emerge from New England with a sense of having met its obligations to humanity and the knowledge of a good job well done.

May you all have a very Merry Christmas and a happy and worthwhile New Year.

F. A. SILCOX

CHRISTMAS COMES TO THE ESKIMO

By C. E. Rachford

Prior to 1892 a primitive race of people, the Alaskan Eskimo, was starving. For several decades the population had been declining. Whole villages disappeared, leaving behind unoccupied igloos and huts as bleak reminders. But why, you may ask, should a race starve which had existed for generations in the midst of natural resources both on land and sea?

While unmixed with white man's blood and unaccustomed to the white man's so-called higher standard of living, the Eskimos did subsist and maintain their population. It is a repetition of the old, old story. Man's search for the bounties of nature has extended ever beyond and beyond, reaching into the furthermost corners of the earth. And in this search the primitive races have always been at a disadvantage. So it was with the Eskimo. First his whale disappeared, then the numbers of walrus and seal declined, and caribou were entirely eliminated from the Eskimo's range. He still had fur and fish, but they too were becoming harder to get.

This was the situation revealed by missionaries and the Bureau of Education in 1892. They met it in a truly objective spirit. Perhaps this was the first time the Eskimos really looked upon the white man as a bearer of gifts. Reindeer were introduced, first by private contributions and later by direct Government appropriation. It was small compensation indeed for the loss of other resources.

In the decade after 1892, 1,280 head of reindeer were introduced from Siberia. Laplanders were brought from Norway to instruct the natives in the care of these animals. The enterprise succeeded from the start and it was not long before a new source of food and clothing had been made available. The excellent attention given the herds from the start was largely responsible for the rapid increase. Numbers of deer doubled each three-year period. By 1918 the herds had grown so large that an unmanageable surplus could be foreseen. This remarkable increase and the vision of a large industry prompted the whites to invest in reindeer beginning in 1914 and continuing for the next several years. Having no outside market, Laplanders and missions who had completed their contracts with the Federal Government were glad to sell their surplus animals to non-natives. This marked the beginning of the private industrial phase.

Large sums were spent by the non-natives for abbatoirs, cold storage facilities, and range improvements, for shipping facilities, and in promoting a market in the States. Just when a promising market looked certain, the depression struck. The private concerns were forced to retrench. Funds were no longer available to provide the care and attention formerly given to herds. Eskimos could no longer rely upon employment which had been made possible by the white operators. Worst of all, the market for surplus native animals faded with the retrenchment of the white operators.

This situation brought discouragement. On account of inadequate funds, herding practically ceased. Herds became irreparably mixed. Losses from wolves, illegal killing, drifting to caribou herds, and winter starvation almost depleted some large herds and greatly reduced others. It was the old story of a maximum peak followed by decline.

It was this situation that Congress attempted to meet by the passage of an Act approved September 1, 1937. This Act authorized an appropriation of two million dollars for the purchase of the non-native deer and properties. When the item was considered at the last session of Congress there developed controversy and misunderstanding. The two appropriations committees therefore agreed on an independent investigation made by a committee of three to be appointed by the Chairman of the House and Senate Appropriations Committees. The committee appointed consisted of Dr. I. D. Wilson, professor of biology for the Virginia Polytechnic Institute, Frank H. Reeds, stockman and newspaperman from Grand Junction, Colorado, and the writer as chairman.

The period June 22 to September 19, 1938, was spent in Alaska. Most of the ranges occupied by non-natives were covered by airplane flights and round-ups. Nearly 70,000 deer were seen at eight round-ups and an excellent idea of the character of the range was secured. Space prevents a detailed account of all the interesting phases of the problem. It may be said, however, that Alaska represents a virgin field for land-use planning, especially the kind that will secure the best use of natural resources for the dependent population. It involves the economic, educational, sociological, biological, and animal husbandry fields. There is one pretty safe conclusion that can be reached: the Eskimo is facing much the same situation he faced in 1892. Unless management of the herds is secured it seems inevitable that the reindeer will follow the path of the whale and caribou. In that event Congress would be called upon to appropriate large sums for relief.

So it appears that the public must again adopt the spirit of St. Nicholas and provide in tangible form for the future welfare of the native.

PRESENT AND FUTURE DEMANDS ON RESEARCH

By C. L. Forsling

The symposium in the September number of the Journal of Forestry, summarizing the advance of forest research along many lines in the past 10 years, emphasized very strikingly two facts.

The first is that, with all it has accomplished and in spite of the important advances in National Forest administration for which it is responsible, forest research has yet a long way to go and a great need for expanding and accelerating its activities if its record of accomplishments is to come anywhere near equalling those in other fields of scientific research - even in other departments of agricultural research. This lag is in no sense due to any lack of ability on the part of those engaged in forest research; indeed, when one considers the vast range of forest conditions, the complexity of the problems to be studied, and the lack of adequate financing in spite of the authorizations of the McSweeny-McNary Act of 1928, the record of achievement is noteworthy. Nevertheless, the lag is a very real one and the need for overcoming it is great.

The second fact brought out is that, while the field of what "we know we know" has been extended with painful slowness, the other field of what "we know we do not know" has expanded in every direction with alarming speed. Every forest research project carried to completion has revealed other unsolved problems, and every change in economic and social conditions, every considerable advance of scientific investigation in other directions has thrown new light upon the complex inter-relationship of the different lines of forest research and their relation in turn to human welfare.

The further silvicultural research is pursued the more inextricably does it become involved with forest products research, with problems of economics and sociology, with a host of biological problems comprised in the protection and propagation of wildlife, with the broad field of ecology, with a multitude of engineering problems in flood control, and many others. Advances in recent years have shown that even so specialized a study as genetics may help the landowner, agriculturist, and land-use planner, by segregating useful strains or by developing species for special use on better soils or in such critical and severe situations as windbreak plantings in dry areas.

Research in silvics and forest management, if regarded in the light of what we now clearly realize is yet to be studied, might be said to be in an adolescent stage of development. Work on many important trees and forest types is far from complete. We know something of forest regeneration in terms of quantity production of timber, but as yet very little in what may one day be the far more important field of quality production. Most of our advancement in the field of forest protection against fire, insects, and disease is in the nature of rescue work rather than prevention. The implications of multiple-use management of forests as they affect silvicultural research have so far been pursued only scatteringly. Meanwhile the growing importance of the relation between forest management and social and economic welfare has been scarcely more than recognized in our investigations.

The ramifications of range research are hardly less involved than those of forest management leading into fields as yet barely explored. Its myriad of unsolved problems extend all the way from the fundamental facts of plant growth to the actual exploration of many important range areas thus far practically untouched, such as the unwisely plowed foothill ranges, the pinon-juniper areas, the expansive sagebrush of the West, the woodland ranges of the Ozarks, and the vast Southern pineries.

Now that the importance of forest cover and forest range cover in flood control has come into public recognition, the urgent need of greater advances in forest influences is very apparent. Upstream engineering is demanding of the forester and range manager precise information that thus far there has not even been time enough to accumulate. The immediate demand is for both more extensive and more intensive studies of many local climates, soils, and forest and range cover in all parts of the country. In every instance the influence of the vegetative cover peculiar to that locality on run-off and flood control must be determined. At the same time there is a considerable need for exact knowledge of the effect of forest and other wild-land vegetation on local climate and weather conditions. The effect of timber-cutting systems on stream flow and erosion and on the occurrence or volume of major floods is an almost untouched field.

Forest products research has had the dual advantage over other branches of earlier establishment in the Forest Service and of concentration of effort on problems that can be stated very specifically and can be answered in shorter time periods. In most of these investigations conducted in the indoor laboratory, progress has been satisfactorily definite and thorough. A number, however, are intricate and still defy complete solution, as, for example, the chemistry of lignin which, despite notable recent progress in studies of its reactions to various chemical agents, remains largely unproven theory. It would be wrong to assume that present achievements mark any limitation in the direction of problems yet to be solved.

The encouraging progress made has served to bring to light a host of "unknowns" both in the immediate field of forest products and in interrelated fields.

One branch of the study of forest products most closely related to silvical research is the determination of wood qualities. If all the work along this line that is yet to be done were completed, there would still be need for determining how the desired qualities of wood are to be obtained most economically and dependably. The ecological implications in the growth of wood of desired or needed quality still constitute almost a virgin field of research. The possibilities in new adaptations of wood to the needs of construction are unlimited. There are whole classes of woods, such as the southern hardwoods, about the utilization of which a great deal more must be learned. The question of what to do with poor-quality, small-sized material, of which there is a superabundance in the Ozarks, New England, and the Appalachians, offers an inexhaustible field of research. Present processes and practices of moisture control in wood require refinements that only much more research can develop. The demands of the wood-pulp industry for new species and processes has hardly begun to be met by present achievements. These and many other lines of investigation, such as the perfection of wood preservatives, the gluing of wood, and the fireproofing of wood offer endless possibilities that require early exploration if the forests of our country are to serve their highest purpose in terms of human welfare.

The Forest Survey is one job in which it is possible to envision the ultimate goal, but the job itself, because of inadequate financial support, is far from complete and is considerably behind schedule. When complete it will give us for the first time a businesslike inventory of the forest situation. It will then be necessary to focus activities on the difficult problem of keeping forest survey findings up to date.

The whole field of forest economics is one of the newest to be explored in forest research, and it is here that there are perhaps the greatest possibilities in the charting of new areas of the unknown in which to pursue investigations. Meanwhile, known problems of private ownership and management of forest land make urgent demands upon us for a more intensive study of economic facts and their effective interpretation. Taxation of forest land, the solution of the increasingly vexatious problem of the "new public domain," and every effort to enforce or adhere to adequate provisions for the harvesting of timber, all require the formulation of sound economic principles based on a more trustworthy and comprehensive body of economic data.

While it is true, as these observations indicate, that forest research accomplishments are considerably overshadowed by the known tasks yet to be completed or undertaken, the outlook is in reality a very hopeful one. Each of the past three decades of forest research has measured a tremendous increase over previous advances. There is every reason to look forward confidently to still greater progress in the next 10 years. We have better trained men than ever before and the forest schools are each year turning out such men in greater numbers. We have a better knowledge of techniques and how to apply them. Even more important, we are beginning to get a perspective on the whole field of research, so that we are not only more clearly conscious of what our problems are, but are better able to determine their relative importance in planning our investigative programs. And, back of our own earnest intent and unremitting efforts to carry out to the fullest possible extent our job of fact finding and analysis, is an urgent public demand for this information, based upon a growing understanding of the forest resources of our country and of the degree to which the welfare of the people is dependent upon their intelligent administration.

SANTA'S ORIGIN

Santa came to America by way of Holland. The old Dutch settlers of New York brought with them all the oyous and hospitable observances of their fatherland. They introduced to their neighbors in the New World St. Nicholas or San Nicolaas, patron saint of children. And San Nicolaas promptly grew a long white beard, belted his jovial stoutness in a red coat and made his bow to America as Santa Claus. - Clipped

THE SKELETON AT THE FEAST

By L. F. Kneipp

It's a poor Regional Office that can't lavish a nice shiny, purring auto upon a visiting "brass-collar" from the Washington Office; in fact, there isn't any such Regional Office. And smiling CCC enrollees or Ranger's clerks fill its tank to the brim without question or requirement other than a scrawled signature on a memorandum sheet. Hard-surfaced roads extend sinuously and endlessly to the furthermost corners of the National Forests, whose boundaries are dignified by artistic and monumental markers. At intervals, Ranger headquarters of surpassing architectural and landscape artistry house staffs greater than those of Supervios' offices a decade ago. Lookout towers stand stark against the horizon at frequent intervals; telephone lines of indubitable excellence fringe the rights-of-way and every now and then a CCC camp, or a central supply depot and machine shop is impressively visible from the highway. From time to time, one detours through or to a campground or picnic spot or more pretentious recreation area, or to a development on the margin of a natural or man-made lake that puts to shame the privately operated bathing beaches of the section. Unquestionably, the Forest Service has gone places in the past five years.

But these are only minor, albeit sharp, details on a canvas characterized by many dark spots. Viewed in broad perspective, the National Forest and surrounding territory may be an area that largely has been stripped of its virgin forest wealth, which has not adequately been replaced. Its most accessible minerals have gone through the mills, with only taling piles of dubious value to show what they had been. One looks long, often fruitlessly, for a patch of feed upon which he could hobble out a horse and ride him the next day. Once fertile fields, if not scoured or scored, have the sickly look of lands consisting largely of raw subsoils. And all of this is reflected in the people; incapable of establishing themselves elsewhere and unable to glean from meager resources the things essential to decent standards of living. Once proud and comfortable homes flaunt long continued deficiencies of paint and maintenance. Able-bodied men sit on porches during the part of the day in which they should be engaged in profitable labor.

For such situations there is but one permanent redemption. In the land and its natural resources lies the only hope that these people can again be proud, independent, and reasonably certain of their economic future. So one looks at the land. What are its potentialities for human service and economic security? For all but minor parts, farming is ruled out by soil character and topography. Upon portions controlled grazing would be permissible, but a pastoral economy sufficient to support the dependent people would devastate large areas. Only the improbable discovery of new mineral deposits would give mining any vital significance. Recreation and game activities alone would not support more than a tithe of the people who need means of livelihood. But the land has in the past produced magnificent forests and under capable management would again do so. The solution therefore becomes obvious. It also becomes an inescapable challenge to foresters.

The challenge can be met only by principles of administration that make resource management and restoration paramount above all other considerations. Only when the forest soils are producing an increment optimum for their site quality; when the openings are producing vegetation of the highest density and palatability obtainable under the controlling ecology; when the erosible soils are so firmly anchored that they are stable rather than fugitive; when the numbers of wild animals, birds and fish are the maxima that can be supported; when the resorted trees, shrubs, weeds and grasses fittingly frame and give charm to the elemental scenery; and when the locally resident and dependent people freed from economic fear view life with the dignity and courage of their pioneer ancestors; only then will the challenge have been met. But when that happens, as it shall, the period of quiet reflection, with which men end each year of their careers, to foresters will be one of the richest spiritual reward. But until it happens, let's not attach too much importance to the material accomplishments of recent years. Until the main job is well done, they might actually be construed by some people as indictments.

"AS A MAN THINKETH, SO IS HE"

(Excerpts from a talk given by Regional Forester R. H. Rutledge at the 1938 Tony Grove Ranger Training Camp, October 15, 1938.)

Centralization or decentralization involves the entire field of relationship between the superior and the subordinate officers and their personnel. ***

Superior and inferior positions may be occupied by men of equal ability. *** The office does not necessarily make the man. ***

Ability involves all those things which go to make up a man -- not only technical knowledge of the job but also mental honesty, respect for the opinion, point of view, and conditions of others, modesty and humility, fairness and patience, and confidence in others. ***

The Regional Forester who desires to have a real decentralized organization, which I believe firmly should be the objective, must have confidence in himself that he can do it, and then consciously, consistently and persistently work for that end at all times. ***

If a Regional Forester is "afraid of his horse" he can and does conceive of innumerable gadgets, schemes, plans, and details which he must put into effect to protect himself from any chance of failure or of criticism. He makes every effort to keep himself in the clear at all times no matter what may happen. He hasn't the nerve to assume the responsibility for the actions of men under him unless he personally supervises all such action.

The Regional Forester must have and must indicate full confidence in his subordinate force, to see their responsibility and to meet it. He must realize that there are plenty of men below him who are just as able and just as intelligent as he is. He must be able to make his subordinates feel this confidence and trust. He must realize that men do not think along the same lines, do not reason the same and do not approach a given problem from the same angle. To try to force all men's thinking through the same channel is fatal to initiative and growth.

We all know that in any group of Forest Supervisors there is one who is not as able as the rest. If he makes a mistake and gets us into trouble, the strong tendency is to devise some system of reports or of control so it can't happen again, and we apply it to all Supervisors alike. I strongly believe that this lack of confidence in other men, or, stated another way, the mistaken belief that we, the superiors, are supermen, lies at the root of most of the centralization difficulty. ***

The matter of fairness is extremely important and has many and various applications. Unfair inspection, those by unqualified inspectors, general observation in inspection reports which cannot be checked or met, indefinite conclusions or those which indicate that the inspector is just as much at sea as is the inspected, all tend toward a situation in which the Regional Office drifts into a position of centralized control.

Unfair loading of work upon the field force without regard for their convictions as to the desirability or necessity for the work and without fair consideration of the amount of work a man should do, is one of the curses of centralization. ***

On the other hand looking at the man in the subordinate position, lack of confidence in the Regional Office and its good faith and fairness is sometimes productive, in the mind of the subordinate, of disregard, of "what's the use", even of contempt. He sulks and says "let the Regional Office run it", and the Regional Office does.

He may lack confidence in his own ability to handle his own affairs and develop a habit of running to the Regional Office for advice on many things which he should and must handle himself. He thus surrenders the superiority into the hands of the Regional Office and constitutes his own position, an absolutely inferior one. He may even fear the Regional Office and become simply a "yes" man.

He may have the ability, but may lack the nerve or else the energy to face his own problems, make his own decisions, and accept his own responsibility. and accountability. He may not even know that he is expected to do these things. I believe this is one of the most serious problems connected with the question at issue and one that calls for the utmost continuous effort on the part of both the subordinate and superior. *** Every time a subordinate lets a case go above him, whether he is right or not, he builds up centralization in the minds of his superior and in the minds of his users, his public. If a man will not handle his own questions, the public is going to find some one above who will handle them.

I think that in the final analysis of the situation, the subordinate is too long-suffering. Some of them get "steamed-up" and go up against the superior stone wall once, twice, or a dozen times, get their ears knocked down, become discouraged, and decide "what's the use." ***

I, many years ago, saw a cartoon showing a group of smug superiors in a second story room complacently discussing what they were doing or going to do to the inferiors in the room below. Suddenly a great hairy arm with a fist on the end of it crashed through the ceiling of the inferior room and up through the floor of the superior room, scattering the superiors in consternation. Perhaps the inferiors should shove a fist through the ceiling again and again.

Again I repeat that I don't think this is a matter that can be covered by rules or regulations. It goes much deeper into the attitudes and characters of men. "As a man thinketh, so is he."

"T'WAS CHRISTMAS IN THE BARRACKS"

By Jno. D. Guthrie

Some one may ask: How does the CCC take any part in Christmas? What part do they play in this Yuletide celebration? What does Christmas mean to the CCC Enrollees? The answer is that they take Christmas seriously, and that it means a lot to them, and because of them, it means a whole lot more to many people outside of the Corps. Even if the Enrollees took no part, the $25 which each boy sends home each month means that some 300,000 families will have a brighter and happier Christmas than they would otherwise.

But here are some of the things they do to help celebrate the Birth of the Christ Child, which after all is the reason for Christmas.

For months past many CCC boys in their handicraft courses have been making toys for needy children. These toys are made from salvaged lumber, fruit boxes, old cigar boxes, or anything handy around the camps. These toys are made, then painted up in bright colors, wrapped, and at Christmas given to children who otherwise would have no toys. For example, last year, every CCC camp in the 1st Corps Area was busy weeks before December 25 making toys. At other camps each Enrollee chipped in 10 cents each and bought toys. A camp in Ohio this year made fifty doll cradles and fifty small wagons out of salvaged materials in camp. In its wood-working shop last year this same camp repaired and repainted hundreds of old toys. Veteran Enrollees are especially active in trying to make Christmas mean something to children of needy families.

In some camps near towns, Enrollees were trained in singing Christmas carols and gave these in churches and over the radio: this was especially true with colored companies.

Most camps have Christmas trees, for the most part outdoor ones--living trees where available,--and decorate these gaily, hang on them the toys they have made, and invite needy families and children. The group of Veteran camps on the Winooski River last year raised $700 which was spent in presents and Christmas dinner baskets for local needy families. This was carried out through a "Christmas Cheer Club" started at the suggestion of "Happy Days".

Christmas trees and Christmas greens come into the daily work of many CCC. For example-in doing timber stand improvement work, holly trees are always spared in marking defective or weed trees in the forest. Then there is planting: during the first five years of the CCC they have planted over one billion young trees, mostly conifers. Eventually many of these stands will be thinned out and many of these thinned trees will probably be used for Christmas trees.

This year a new note comes into the Christmas picture. CCC work is being carried on in Northern Alaska within the Arctic Circle, among the Eskimos and Lapps. The work centers largely around the care and better handling of the reindeer, the building of shelters for emergency use of the reindeer herders, and the extermination of wolves and coyotes that prey on the young reindeer. All this has for its purpose the better care and handling of the reindeer, a most important animal for the Americans on the Northern fringe of this continent, for the reindeer furnishes meat, milk and clothing for the Eskimos, as well as serving as a beast of burden or a means of transportation.

And then, who knows but what this will mean the raising of better and bigger reindeer so that Santa Claus will not only always have a big supply of reindeer ready at Christmas time, but will also have bigger and finer animals? Of course, everyone has long known that in order to cover the country in a very short time as Santa Claus has to do, he needs the swiftest and best reindeer that he can get, and the CCC in Alaska are helping him in this.

In the CCC camps all over the country, there is always a fine big special Christmas dinner, with turkey and all the trimmings. Just as an example, the Quartermaster of the U. S. Army has bought tons and tons of turkey. Just for this big dinner, the Quartermaster will buy such unbelievably large quantities as these: 250 tons of turkey, or 500,000 pounds, or 40,000 turkeys - to provide 25 ounces for each CCC boy. Then there are 17-1/2 tons of pumpkin, 59 tons of potatoes, 22 tons of bread crumbs, 6 tons of onions, 8-1/2 tons of sugar, 1,500 bushels of cranberries, 3,700 gallons of milk and more than 100,000 eggs. All this food will be purchased in the wholesale markets and also in local communities where the camps are located.

And here's the dinner - what is a dinner: fruit cocktail, cream of tomato soup, turkey with oyster dressing, white and sweet potatoes, creamed cauliflower, a choice of at least 4 desserts, including ice cream, pumpkin pie, layer cake, or mince pie, together with assorted candies, fruits and nuts, cider or "pop" and coffee. No wonder the average CCC Enrollee increases his weight by 15 - 20 pounds!

WIVES OF FOREST OFFICIALS UPHOLD SERVICE TRADITIONS

"Wives of United States forest service officers have a tradition all their own. It parallels the public service tradition of the foresters themselves.

"Wives of the foresters love the forests too. They want to see the forests conserved, used by commercial interests for sustained-yield operations but more especially utilized by the public in finding health-giving recreation in the midst of scenic, tranquil beauty.

"Women of the forest service share the men's dread of fire, that beauty and asset-consuming force. When a fire occurs, the women go into action, too.

"Consider the example of Mrs. Lee Port, wife of the veteran ranger in charge of the Applegate district of the Rogue River National Forest. For the second time in a week lightning struck Thursday evening, setting numerous fires. Mrs. Port went to work immediately.

"Here is a report received at Medford headquarters by Simeri Jarvi, fire chief, from Mrs. Port. It was a telephone report.

"'This is Mrs. Port speaking. I thought I had to tell some one what action was being taken. One fire is out. The fireman is here lacing his boots. He put out the fire before lacing them.

"'Wagner Butte lookout is on another fire. I sent Wagner Gap fireman to the Wagner Butte Station to be on lookout. Headquarters fireman is on his way to a class B fire with CCC men.

"'Ranger Port and assistant Albert Young have also left for the fire. They think they will have it trenched before the CCC's get there. My daughter Frances, and the fireman's wife, Mrs. Eugene Tower, are going to a spot fire about 400 yards from the class B blaze.

"'I called another crew of CCC men from the camp for standby at the station. If anything more happens, I'll let you know.'

"An hour later more had happened. Mrs. Port telephoned again:

"'The girls returned and reported that Ranger Port and the protective assistant had the lower fire trenched but it was not safe and the upper fire was still blazing but CCC men are fighting it. I sent Foreman Mills with his crew to the fire. That is the situation up to now.'

"Yes, wives of forest service officers have their own tradition of service. They don't get paid for their work, but that does not matter. They love the forests." – From "Mail Tribune," Medford, Oregon, July 15, 1938.

JUST SOME MEMORIES

By John H. Hatton

The Christmas Season is made fuller and richer by our childhood and boyhood memories and those of our own children. The wholesome impressions of youth are never forgotten. How can I weave that thought into the editor's request for a human interest story about fish and game?

I could begin by saying somewhat regretfully that my personal and principal interest in wildlife has not been in the hunt nor the chase, but mainly in an appreciation of a vitally important natural resource to our country. I wish I had more of that other element in my make-up, because the boy or the man who has that in him, becomes, I believe, more outstanding, and, perhaps, more useful to his generation. I am interested in the social, the upbuilding influences of wildlife and the contributions it makes to our greatest of resources – the human family. I am interested in the relations and influences of fish and game and birds in contributing to the elements of stamina, friendship, fellowship, sportsmanship, and square dealing among men and with wild creatures; character and patriotism, all so essential to good citizenship and to the continuance of our "place in the sun." I am interested in wildlife economics, direct and indirect, which may be more important than we sometimes think. Wildlife will always pay its way. Its ledger will never be red.

The farmer boy of the eighties, whose parents pioneered in a covered wagon to new prairie frontiers, found little time for hunting and fishing diversions and few places to go.

But there were occasions and there were places that were not circumscribed by bag and creel limits, nor restricted hunting seasons as we find them generally necessary in our present day. If a flock of prairie chickens settled on the wheat stubble during fall plowing we tied the reins to the lever of the plow and sprinted to the house for the shotgun, and mother had a most gorgeous meal for us on such days. If, during our barefoot treks we almost stepped on a mallard or a blue-winged teal in its carefully concealed nest near the creek which ran wet and oftener dry through the cow pasture, we waited and watched and visited that nest during the incubation period and the growing ducklings along the creek through the summer; and maybe dove into the water and caught a few of them bare-handed when full grown but unable to rise in flight. If you have tried that you learned that your score was about .001.

Mud creek was the name of our "river", but who cared for the mud except our mother. In the spring, during migrations, many flocks of honking white and gray geese settled in thousands over our fields of newly planted grain. I'll not forget how we crawled what seemed miles on our stomachs to avoid visibility, edging in turns our one gun before us, our clothes and complexions merged into the newly tilled soil, to get within range. Our blunderbuss had a spread almost equal to its straight-away. You aimed at one and might hit five or ten, but usually did not hurt any of them seriously. I once chased a white goose that I knew was wounded several miles across several neighbors' farms before I exhausted his remaining ability to make short flights.

Did you every fish for bullheads? In many years of experience in the Forest Service, no area has ever appealed to me like the Wichita National Forest and Game Preserve in southwestern Oklahoma. As I visited the Wichita from time to time in the course of official duties, I seemed always to be subconsciously reminded of my boyhood days on the plains of South Dakota. How, after the spring crops were planted, the corn weeded and cultivated and "laid aside," there would be a brief respite before haying time and harvest, and the boys and girls of our neighborhood would plan a day's picnic some distance from our homes on James River, to enjoy the shade of groves similar to those on the Wichita (and such as are developing now in the Plains Shelterbelt), and to fish. We would get up earlier that particular morning (if it were possible to arise earlier than was our habit on the farm). We would harness a flat-bottomed boat that our family possessed under the axles of the farm wagon, hitch up the big farm teams, and put on the spring seats to the number of three or four to each wagon, and then get in, in our overalls and ginghams and sunbonnets, three to a seat, and go thumping along the rutty roads to "Jim River." It wasn't far but methods of transportation then made distances longer and only once a year could a farm boy or girl be spared, it seemed, for such a diversion.

I can see now those boys and girls with willow poles and lines and bobbing corks (even a bamboo pole would have been a luxury), and I can hear the shouts of delight as a bullhead or perhaps an occasional pickerel was hooked and brought to shore. I recall how expert I became skinning the slippery things and can still feel the jabs from their spiny fins and horns. But who ever tasted better and sweeter fish than bullheads?

And so, as I visited the Wichitas in my mature years, and saw the boys and girls and the men and women from the farms and fields and cities on the shores of man-made ponds and lakes, as I looked at a mother one day fishing in bib overalls and watched her little baby cooing and prattling and creeping on the bank, I was reminded of Dakota farm days, and our annual picnic to "Jim River." It was only a creek, but it was a river to us then, and it had swimming holes, bullheads and pickerel, trees, and cool, shady groves.

Thus, also, are we reminded of the opportunities and responsibilities in administering the National Forests for today and the generations to come.

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FOREST SERVICE U S DEPARTMENT OF AGRICULTURE

SERVICE BULLETIN

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> WE ARE COMING TO RECOGNIZE AS NEVER BEFORE THE RIGHT OF THE NATION TO GUARD ITS OWN FUTURE IN THE ESSENTIAL MATTER OF NATURAL RESOURCES. IN THE PAST WE HAVE ADMITTED THE RIGHT OF THE INDIVIDUAL TO INJURE THE FUTURE OF THE REPUBLIC FOR ITS OWN PRESENT PROFIT. * * * THE TIME HAS COME FOR A CHANGE. AS A PEOPLE WE HAVE THE RIGHT AND THE DUTY * * * TO PROTECT OURSELVES AND OUR CHILDREN AGAINST THE WASTEFUL DEVELOPMENT OF OUR NATIONAL RESOURCES, WHETHER THAT WASTE IS CAUSED BY THE ACTUAL DESTRUCTION OF SUCH RESOURCES OR BY MAKING THEM IMPOSSIBLE OF DEVELOPMENT HEREAFTER.
>
> Theodore Roosevelt

Vol. XXII No. 26 Washington, D. C. December 26, 1938

CCC AND THE ABUNDANT LIFE

By H. C. Maaske, Washington

From the beginning of the Civilian Conservation Corps many Service articles, stories, and speeches have been peppered with impressive statistics, such as miles of roads and trails constructed, millions of trees planted, bridges built, improvements developed, and so forth. None will say but that these are all very good, but the tendency to emphasize physical, visible accomplishments has been such as seemingly to cause us to lose sight at times of other equally important, deep-rooted, and lasting benefits of this great project. I refer particularly to the intangible benefits to the hearts, minds, and bodies of these boys we call CCC enrollees. Notwithstanding the many excellent tangible works towards conservation of the Nation's natural resources and the public welfare, I think history will record that in these intangible fields rests the greatest opportunity for the CCC to contribute its full share to this day and generation. These same intangibles will, in the end, I believe, contribute a more positive force than anything else to the march toward the really more abundant life, which we all are by chance or design constantly seeking.

This theme is so well caught and expressed by Henry C. Link, Ph.D., Director of Psychological Service Center, New York City, in his book "The Return to Religion," published by The Macmillan Company, that I quote a few paragraphs, in part, as follows:

"I know of only one among the many comparatively new governmental agencies which is helping people to attain the more abundant life, that is, the CCC camps. Here alone the popular conception of an American standard of living and a life of greater ease has been abandoned. Here the wages are ridiculously low, and even so, the earner is allowed to keep only a pittance for himself; the rest must go to his family. Here most men must work harder than they ever worked before, and at tasks whether they like them or not. Here men feel tired at night and know the pleasure of an earned night's sleep. Here men must get up in the morning whether they like it or not. They must associate and work with all kinds of people, whether they like them or not. They must eat pork and beans, corned beef and cabbage, or what they get, or go without; but such is their life that simple fare soon tastes good to them and whatever their social, economic or political beliefs, their tastes or fancies, catered to by indulgent parents at home, they must conform to the discipline and routines which these camps embody."

"The men who emerge from the rigid discipline of these camps, it is widely agreed, have not only experienced an abundant life but are better equipped to achieve a more abundant life. Through their enforced contacts they have learned to respect and like people whom they would never voluntarily have chosen as friends. Having learned, often, to think more highly of their fellow workers, they have also acquired greater confidence in themselves - the latter is a byproduct of the former. Through the pressure of mass action they have come to appreciate a day's work at jobs which, left to themselves, they would have spurned at three times the pay. Life in the barracks, in tents, and on Army fare, has given them an inkling of the fact that the more abundant life lies, not in the American standard of living or in $2500 a year, but in themselves. Under a discipline which did not consult their whims, they have learned that action is more satisfying than introspection, physical exhaustion sweeter than self indulgence. They emerge from these camps better equipped to give their energies and attention to others and therefore more likely to achieve a satisfying compensation for themselves."

"If I could make only one recommendation in regard to the American educational system, it would be that all boys between the ages of 18 and 21 be compelled to spend a full year in the CCC camps as now constituted, rich and poor alike, and especially college students."

RECENT DEVELOPMENTS IN FIRE SUPPRESSION

By Roy Headley, Washington

Up to December 10, 13,223 fires had burned 218,054 acres on the National Forests. Out of all these fires, only 75 burned more than 300 acres each. These 75 fires have probably burned about 70 percent of the total area lost.

In this connection there is an interesting conflict of theory. In answer to the question, "Shall we focus our study of suppression chiefly on the 75 fires or on the whole crop of 13,223 fires?" one school of thought holds that it is a mistake to give special attention to the 75 larger fires. This school believes that the weaknesses responsible for the 75 fires will be most effectively discovered by impartial study of all fires. An opposing school holds that the suppression of small fires is relatively far advanced and that the most productive line of suppression inquiry is now to be found in more attention to the small number of larger fires.

Recent developments with respect to suppression of the larger fires cannot be called "satisfactory." Nevertheless, there are developments; some of them quite promising.

For example, there is some reason to be hopeful about the One Lick Method. The basic idea underlying this method was formulated some twenty-five years ago by D. P. Godwin.

The concept then lay dormant until 1935, when, in response to a provocative paragraph in a letter, Kenneth P. McReynolds of the Rogue River National Forest began to experiment. Interest in the method spread rapidly and a Region-wide program of tests and development was inaugurated. Individual men in nearly all Regions soon began to experiment with the idea. To aid them a training film has been produced by Region 6, with Jack Campbell playing the unfamiliar and exacting role of motion picture producer. Prints of the film have been distributed to all Regions except Alaska.

The method makes a direct attack on the major suppression problem -- efficiency in the conversion of available energy into held line. If it catches on, the method will make a drastic reduction in the usual number of man days required to produce a mile of held line. Or, to put it another way, the method may enable a crew of from ten to a thousand men to double the speed at which a free burning fire is surrounded by a line which can be held. Fires will be corralled before they have a chance to spread so much and there will be fewer instances in which fires make big runs because "the fire line had not been quite completed." The method seeks to inject principles of management, economy of effort, and an understanding of the behavior of tired men into the usual confusion and disorder of the fire-fighting job.

The seeming simplicity of the method is deceptive. While it is simple in theory, the task of perfecting a set of flexible techniques for streamlined application of the method will require much creative labor by many first-class minds.

The Bosworth Trencher is another promising development. It has been agreed that J. H. Bosworth is most entitled to credit for the initial creative thinking. (See December, 1936 issue of Fire Control Notes). But in the evolutionary process the machine has departed so far from "Jimmy's" original idea that he laughingly disclaims paternity. Others are entitled to credit also. From some previous experience O. Gordon Conrad contributed the idea of the "hammers" now used in lieu of some kind of a brush. This hammer idea got us over what might otherwise have been an insurmountable obstacle. Conrad's name is linked to that of Bosworth in the patent application. To keep the record straight, mention should also be made of K. D. Swan, the "photographer" who long years ago advocated in writing some such machine as Bosworth later suggested. Then there is George Duncan, Equipment Engineer, without whose persistent enthusiasm and good judgment the development would have lagged or stalled.

The significance of this Region 1 creation is pretty well measured by the fact that conversation about its output of trench is in terms of "chains per minute" instead of usual low rates of output of hand-made trench. The machine therefore drives at the same major problem as the One Lick Method -- speed in corralling fires. The machine is so small and light that when two of them are lashed in the bed of a pick-up, most of the space is left unoccupied. This means that the machine has a chance to arrive at the fire with the first men -- which cannot be said of most of our machine tools. For the first time we have a power driven tool that is really designed to fit our peculiar needs. Production costs will be low enough so that, if the machine clicks, we can own hundreds or thousands of them in a few years -- enough really to amount to something. The machine can be used on steeper slopes than the trusty horse and plow or the tractor-trailbuilder. When it comes to slopes as steep as those where the larger fires occurred last summer on the Klamath, all machines are simply out. The trencher apparently has an important role to play in all Regions except Alaska. Tests have proved it to be an answer to the fire-fighters prayer in rooty white pine duff in Idaho. In needles and light litter it performs with ease and efficiency. And the way the dust and dirt stream knocks down flames in grass seems like magic.

The machine is not a clearing tool. Clearing of anything more than low brush must be done by hand or with Region 6's baby, the brush buster, or Region 5's favorite, the conventional tractor-trailbuilder.

Our most serious obstacle is that we have not yet found a source from which to obtain a sufficient quantity of 5 to 9 horsepower engines for the machine.

Use of chemicals has been actively promoted for several years. Something worth while should develop -- but has not as yet. Fourteen Kempaks (man-pack outfits for using foam producing solutions) were distributed to Regions last summer. The reports show that this venture is not yet successful. The painstaking work of Region 7 on this project is not lost, however. We can build anew on what has been done.

One foam producing tank truck outfit has been turned out by Region 7 and this seems to be a complete success. These rigs are rather expensive, however.

The Madison Laboratory has identified one or two chemicals which in test fires show an interesting superiority over an equal weight of water. Only tests in the hands of actual users in routine suppression experience will determine their final value.

After many false starts, aircraft has found a valid and important place in fire suppression. It has proved to be a life-saver for transportation of tools and equipment. Region 6 reports that 112 tons of supplies and equipment were freighted by 5 planes to the Siskiyou fires of last summer. Without this reinforcement, the 200 motor vehicles and 300 head of stock would have been quite unable to supply the 4,500 men in 50 camps as they constructed 150 miles of lines in rough, roadless areas.

Our trouble is that the available planes have too little pay load capacity. Under tough conditions, shiploads of actual food got as low as 400 pounds on the Klamath. It is too much as though we were compelled to use sparrows on a job requiring sea gulls or wild geese. We did have one real cargo plan available, he Ford tri-motor at Missoula. It would haul 3,500 or 4,000 pounds at a trip. But it cracked up and may not be repaired. California can summon enough of the little ships to get by after a fashion. But small ships are not so plentiful elsewhere.

District Ranger Lowden, Air Boss for the Siskiyou fires, writes: "Without doubt the time is not far away when the initial action on small fires will be taken from the air."

He may be right at that. At any rate, a crew in California is busily engaged in the laborious task of trying to make this dream come true. The Service now owns its own ship for this experimental work. The project is adequately financed. Next season should see an attempt to drop liquids or other retardant substances on actual small fires. If this cannot be done efficiently, we will then know for sure that we must await the coming of the hovering or slow speed type of ship having enough pay load capacity to be interesting to us.

No list of important recent developments in suppression should omit the Region 5 fire control handbook. In the judgment of veterans in fire control and fire training this publication by S. B. Show, J. H. Price, R. L. Deering, G. M. Gowen and C. A. Gustafson really breaks new ground. The arts of clear thinking have been employed to set out fire suppression problems with new clarity. Diagrammatical and other devices have been employed which should take a lot of the usual fog out of fire suppression training. The underlying thinking has been so well done that the book is pertinent in all Regions. It is not merely a handbook for those concerned with California alone. A supply of the books has been made available to all Regions.

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"Everybody needs beauty as well as bread, places to play in and pray in, where nature may heal and cheer and give strength to body and soul." - John Muir.

A SHORT-TERMER SPEAKS

By Nels Bruseth, "Perennial" Forest Guard, Mount Baker

Having read the very timely article on the "Short Term Employee" of the Forest Service by Roy Headley in the Service Bulletin of October 17, 1938, the thought came to me that it would be a fine thing to get a copy of this article to every Forest Guard and old-timer trail man. It might give the fellows a litle hope and cheer to know that they are not alone in believing that things should be different.

Looking back over nigh onto 22 years as a short term man I can say for myself and others if we hadn't been incurable optimists we would have pulled out long ago to seek jobs or occupations offering steadier employment and greater security. But we have been hoping for recognition of our value in the form of guaranteed 6 to 10 months' employment.

Seldom is complaint heard about long hours, hard work, and sometimes severe tests. We have taken these and come back for more. It isn't the wages. These in most instances are fair enough, even if we do have to dress up in uniforms, buy a few extra shirts, furnish a car, and be up to snuff on a lot of things that are not required of a logger or mill worker, who gets considerable more pay for jobs of much less responsibility. However, no complaint on this score.

No one is more devoted to true forestry than the average Forest Guard. Whether building trails, manning a lookout or chasing and suppressing a fire he does it with a vision of what it means for the future.

Rangers come and Rangers go, but some of us short-termers stay in the same district for years. Even the most active Ranger seldom acquires such intimate knowledge of country and conditions as the old-time guard and trail man. Many a time has this knowledge saved the day. The average guard may not be so heavy on a lot of technical stuff, but he is generally resourceful and will jump in and handle a tough situation creditably.

Many good, dependable, and experienced short-termers have dropped out, especially family men. They just couldn't come out right financially. New men interested in the work and with splendid qualifications often hesitate or refuse to return for a second season, especially those who do not want to remain bachelors.

Mr. Headley compares the guard's income with that of the W.P.A. employee. Why not compare it with the CCC's and what they actually receive, in subsistence, clothing, shelter, recreation, medical treatment, etc? The figures will probably show heavy for the CCC's.

While mentioning the CCC, it seems to have worked out so that since the advent of this organization there has been less work and shorter seasons for us. That is something which is a little hard to take. We certainly need employment and income as badly as some of these boys.

When the CCC began we stayed by the protection jobs, feeling it was our duty. It was hinted that when the season was over and late fall brought us in from the hills we would find a job in the new organization, but these jobs didn't materialize. Yes, some of us went in as rookies for 2 to 3 months, and it wasn't so bad at that. It might not be such a bad idea to revise the rulings so that we could drop into the CCC when laid off from the regular work. It would be something to tide us over the winter. The wages need not be high, -- who knows but that it might be a good thing for the CCC.

What to do about it? Mr. Headley asks. Well, here is my suggestion: Give each Ranger District salary allotments for a certain number of keymen, Guards, Trail Foreman, etc., for longer periods each season, not as now, for only 2 to 3 months. For instance:

3 men for 10 months
3 " " 8 " , etc.

Such a guaranteed period, with a certain date of beginning and termination would give us a chance to budget ourselves and plan for the off months.

As it is now we wait anxiously in the spring for a call back to the job and in the fall hope it will hang on a few days longer, so we can better pull through the winter. This plan shouldn't prevent the use of Forestry Students and temporary trail laborers on special allotments as now for maintenance, construction, etc., for shorter periods. There should be no serious objections to such a plan by the Rangers.

In conclusion, I do not think Mr. Headley has overdrawn the picture. One thing he forgot to mention is the effect on the morale of the men. Men who feel that they are appreciated and treated fairly will produce with good will. But let indifference to condition and welfare continue too long and it seldom fails to show on the attitude toward the job.

Social security is the slogan. Let us get a little of it for the Short Term Forest Service employee.

CONSERVATION IS NEW WAY OF THINKING

"What is conservation? Everybody has an idea about it because the word is in such general use. Few persons go much further than the definition given in the dictionary - many not that far - and have never considered the broad application of the word as it is used by foresters and specialists in other fields," says the New York State College of Forestry at Syracuse University.

"In explaining conservation, some authorities state that it is not a subject, but a method of living; others say that it must be considered as an activity, or an attitude toward thrift; still others, that it is a new way of thinking of which the American people are in great need.

"Conservation does not mean just to preserve, or to protect, or to nurture. It does, however, carry those ideas. It is definitely opposed to destruction, extravagance, and neglect. Conservation is nothing temporary or occasional, or epidemic. It must be continuous and constructive and profitable. In this sense, conservation should influence our daily lives and everything we do because in the last analysis, and in using the word in its broadest sense, it means doing the right thing all of the time. So conservation applies to our individual habits at home, in the office, and in public places like the forests and fields and on the waterways.

"Conservation means wise use of time, funds, material, health and natural resources, such as the forests, the soils and wildlife, the use that, under all the circumstances, obtains the best possible in the interest of society."

IMPRESSIVE RITES MARK DEDICATION OF BARNES BUTTE

(Excerpts from R-3 Press Release)

A bugle sounded from the amphitheater in Papago Park near Phoenix, Arizona, sending the sweetly solemn notes of "Taps" into the hushed air. Hardly had the last note died when the call floated back softly, like an echo, from another bugle on a distant height.

Thus ended, on December 4, the impressive ceremonies with which Arizona inscribed the name of Will C. Barnes on its roll of immortals and dedicated Barnes Butte in tribute to his life of public service.

Governor R. C. Stanford and prominent citizens of Arizona joined in the dedication, which was conducted by Maricopa Chapter of the Daughters of the American Revolution, in cooperation with the Forest Service. Mrs. Barnes witnessed the homage to her husband, who died at Phoenix on December 17, 1936. T. T. Swift, former Supervisor of the Tonto National Forest, presided. Invocation came from the Very Reverend Edwin S. Lane, Dean of Trinity Cathedral, Phoenix. Speakers were Dr. Frank C. Lockwood, past president of the University of Arizona, and Assistant Regional Forester Rex King.

In behalf of the State, Governor Stanford accepted two memorial plaques, one from the D. A. R. and one from Barnes's comrades in the Forest Service. The D. A. R. plaque was unveiled by Mrs. Carl J. Walters, D. A. R. historian, Phoenix. The Forest Service plaque was unveiled by Assistant Regional Forester King. The plaques were presented respectively by Mrs. Walter G. Willson, past regent of the D. A. R., Phoenix, and C. E. Rachford, Assistant Chief of the Forest Service, Washington, D. C. They will be permanently located in a small recess in the base of Barnes Butte, a dominant landmark so named by the U. S. Board of Geographical Names.

Mrs. Ethel Maddock Clark, honorary state historian of the D. A. R., pronounced the words which dedicated Barnes Butte. The ceremonies ended with a volley from a National Guard firing squad, and the sounding of "Taps", first by a bugler behind the amphitheater, then by a bugler on a distant butte.

Indians besieging the army post at Fort Apache brought Barnes his first chance for outstanding service. He had come to Arizona as an army telegrapher at the age of 22. When the frontier fort was surrounded by Apaches and cut off from communication, young Barnes volunteered to attempt to reach Camp Geronimo and bring reinforcements. He succeeded in the perilous assignment, and was rewarded with the Congressional Medal of Honor in 1881. Declining a commission as second lieutenant, he left the Army in 1882 to enter the cattle business. * * *

Mr. Barnes's career with the Forest Service began September 1, 1907, only two years after the establishment of that organization. After a short time at the office of the District Forest Inspector in Albuquerque, he was transferred to the Washington Office. He served as Inspector of Grazing, with headquarters at Washington, until 1915, when promotion made him Assistant Chief of the Forest Service, in charge of range management on all National Forests. Barnes had an important part in the development of permanent range management policies for the National Forests, and in the movement for conservation of range resources.

Under authorization of Congress during the 1920's, he traveled in the Southwest, locating a number of longhorn cattle, the breed which made early history in the West and is now fast disappearing. The longhorns he collected were established on the Wichita National Forest in Oklahoma, and a small herd is being maintained for preservation of the breed.

Following his retirement from the Forest Service in 1928, Barnes served two years as Secretary of the U. S. Board of Geographical Names. He then devoted himself to writing. His talent at this, aided by a keen memory, a lifelong diary and his broad experience in the West, made him a prolific and accurate writer. From his pen came works of scientific value and popular tales of life in the West.

Among his works in book form are "The Story of the Range", "Western Grazing Grounds and Forest Ranges", and "Arizona Place Names". Articles and bulletins bring his total of works to approximately 150.

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MRS. EDGERTON RETIRES

Mrs. D. Priscilla Edgerton of the Division of Information and Education in the Washington Office retired from the Service on November 30. She first came to the Forest Service in 1909 in an editorial capacity, later (in 1923) transferring to the Department's Division of Information and Publications.

In 1927 Mrs. Edgerton was called to Mississippi to develop a program of forestry education in the schools of that State. Among her outstanding accomplishments there was the writing and publishing of an elementary textbook "Southern Forests." This book has given Mrs. Edgerton a widespread reputation as a leader in forestry education.

On her return to the Forest Service in 1930 she continued work in the same field. Her bulletin "The Forest, a Handbook for Teachers" has been a "best seller." Probably her most notable work is "Famous Trees", an edition of 20,000 copies lasting but a few months. Her research for this has made her an authority in this field.

Just before her retirement, Mrs. Edgerton prepared three units in a series for use of teachers of the social sciences in Junior High Schools. One of these - a geography unit - has already been distributed to teachers requesting such information. Another - a civics unit - is on its way to publication. A third, which deals with the part forests have played in the history of mankind, is in rough draft, except for a chart covering various phases of the subject as an outline for the use of the text.

Mrs. Edgerton has been honored by appointment as a collaborator in the Department of Agriculture to assist in a historical study for the Forest Service.

In appreciation of her work in the Service, Mr. Silcox wrote Mrs. Edgerton as follows:

"Upon the occasion of your retirement from the Forest Service I want to express to you some thoughts that are in my mind which I know are shared by all who have been associated with you during your long term of service.

"You leave this organization with a splendid record not only of long and faithful service, but also of pioneer work in forestry education. It is doubtful if anyone did more than you in the early days to interest women in the Nation's forest problems. You were the first member of the Forest Service to specialize in the preparation of material for teachers.

"The Service is proud of your contribution to the education of countless boys and girls. The esteem with which school people regard the Forest Service has been greatly augmented by your influence on our publications and by your helpful suggestions to teachers. Your ability to do effective research, to develop new materials continuously, and to present new viewpoints has been outstanding.

"The efforts made to postpone the date of your retirement are indicative of our high regard for your services officially. Your warm personality has contributed abundantly to a better esprit de corps among your Forest Service associates and is cherished above all else by all who know you.

"It is the hope of all of us that you may have many happy active years for continued achievement."

THE EDITOR DISCOVERS

Plans are under way for a cooperative study of the Boise River by the Department of Agriculture and the Geological Survey. These studies are in part directed toward the flood control program of this watershed. Plans involve establishment of 13 stream gauging stations to determine the flood flows from a number of tributaries in order to determine the extent to which cover conditions and their use affect run-off. The areas to be sampled include some heavily grazed, burned, and cut-over watersheds, and some in which hydraulic mining operations are under way. The Geological Survey will also make studies of the amount of silt carried by the streams at the various gauging stations. This study of streamflow and siltation is part of a general study of erosion conditions and sedimentation. The sedimentation studies involve determining the extent to which the diversion dams, reservoirs, canals, and the streambed of the Boise River have been filled in by deposits of debris brought down from watersheds where practices affecting flood flows and erosion are involved. This work is part of the general flood survey being made at the present time under the flood control act on the Boise River watershed.

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The use of paint guns in marking timber in place of marking ax or marking hatchet has been developing gradually for several years. The Northeastern Forest Experiment Station should be credited with the first printed article advocating their use, particularly in thinning dense stands. Its adaptability to Forest Service work seems to be more or less masked by the use of the lime bag, but the eastern regions, particularly Region 8, have been using the paint gun rather widely in sales. Among its advantages are: that no injury is done the tree to attract insects or to give entrance points to fungi pores; and that large blotches of yellow paint are readily seen by the fallers; also under some circumstances a distinct saving in time is possible, particularly if a responsible marker merely bosses the job and has a couple of assistants who actually work the guns. The disadvantages seem to be chiefly the inevitable spraying of paint on the clothes and person of those using the guns.

Although wide use of this method of marking has been made in Region 8 there has yet been no attempt made to counterfeit the paint marks by anyone. For use in sales the Region 8 men dilute the paint with about 50 percent kerosene and change the nozzle furnished by the manufacturer by enlarging the nozzle hole to about twice its original diameter.

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A fire, which started at 1 a.m. on November 18, burned over about 500 acres of the

San Dimas Experimental Forest. The fire, started by a broken power line, was driven southwestward by a wind approaching 50 miles an hour in velocity and with a humidity down to as low as 8 percent. Unfortunately, the area in the San Dimas watershed burned over was one in which the California Forest Experiment Station had a considerable amount of work under way. Three experimental watersheds in the bigcone spruce type were burned over, the fire destroying the instruments and damaging some of the stream gauging installations. A considerable number of high priced instruments were destroyed, together with a WPA camp. The monetary loss of the $50,000 involved perhaps is not as serious as the destruction of the cover at this particular time. Although it was planned to treat the small watersheds burned over possibly by fire, this treatment was not contemplated before about 1950. The loss of the cover will therefore occasion considerable change in plans in order to take advantage of the situation. A number of the experiment stations and the Soil Conservation Service have loaned the California Station instruments and equipment in order to meet immediate needs.

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According to a recent letter from Region 6, the manager of a large chain of theaters in Portland stated that the Forest Service motion picture "Winter Wonderland" is one of the best Government motion pictures he has ever seen and that he would be glad to run others of similar quality and showmanship.

Region 6's comments regarding the picture are as follows: "We wish to commend the reel 'Winter Wonderland' as the type of picture that we need, possessing as it does sufficient merit, public appeal, and showmanship to reach large and worth-while audiences. The 16 mm. copy has just recently been featured at a winter sports show held by the Frederick & Nelson Company, Seattle's largest and most exclusive department store."

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Region One believes in decentralizing responsibility. The latest manifestation of this belief is the placing on their Supervisors of the entire responsibility for obtaining such examinations of cutover timber sale areas as will give a clear record of what has happened. The only fixed requirement is for starting such a record as each sale of 2,000 M feet or more is closed. After that, the Supervisor decides how often the area should be examined in order to meet his responsibility to get "enough reports to insure definite knowledge of the results obtained from the silvicultural practice" on the sale area. A Supervisor has to have this information in order to be a competent forest manager of his National Forest. Now the job of getting it, where and when worthwhile data are available, is given him without strings.

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James R. Dickson of the Dominion Forest Service at Ottawa, Canada, has requested copies of "The Lower One Third and the Forest Service" by Martha Bensley Bruere. Mr. Dickson desires this pamphlet to study in connection with human problems facing the Canadian Forest Service, and Mr. Silcox has given permission to meet his request.

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The CCC will need 52,000 young men and Veterans in January to fill vacancies occurring in the Corps by December 31, 1938, according to a recent CCC press release. Selections will be made from January 1 to 20, in all States. After these new enrollees are taken in, the Corps should have a strength of 310,000, made up of approximately 300,000 juniors and veterans, 6,600 Indians and 4,000 Territorials in Alaska, Hawaii, Puerto Rico, and Virgin Islands. For the October enrollment, there were 200,000 more applicants than there were vacancies.

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"Native Woody Plants of the United States - Their Erosion-Control and Wildlife Values" by William R. Van Dersal of the Soil Conservation Service has recently been published by the Department as Miscellaneous Publication No. 303. The main feature of the book is a 250-page inventory, giving for each plant of importance its natural range, popular name, where it grows best, its fruit, the season in which the fruit or foliage is available to birds and animals, and a condensed description of the plant and records of its use by wildlife. The book is not intended as a substitute for botanical manuals or local floras, but supplements them. It is bound in buckram and may be obtained from the Superintendent of Documents for $1.75 a copy.